October 12, 1959

RAILWAY AGE *weekly*

Ford's idea: An "Air Car" to run on rails

R COMP
EDITORIAL DEPT
UNIV MICROFILMS INC
313 N FIRST ST
ANN ARBOR MICH

JOB TIPS:

Tell The Boss

Signal officers can ease budget worry with "continuous education"

60 cents A Simmons-Boardman TIME-SAVER Publication

ONE DOSAGE of DRY Nalco H-174 for ALL-YEAR WEED CONTROL

Low dosage — usually a small fraction of that of other "apply dry" formulations — is a big advantage you get with H 174. And it's easily explained. Nalco H 174 has an unusually high concentration of powerful killing ingredient. *You get much more killing power with much less chemical to transport and apply.*

Nalco H 174 is effective whenever you apply it, but you can get full advantage from this powerful herbicide by spreading a single dosage about 2 weeks *before* weeds begin to emerge. H 174 will keep them down all year long, eliminating unsightly and inflammable weed debris, preventing re-growth and mid-season seeding.

Spreading *dry*, granular Nalco H 174 is a fast, simple operation. No mixing, spraying, or dilution . . . ready to use as it comes from bag or convenient shaker box . . . distribute by hand or with mechanical spreaders . . . For better weed control, plan on using Nalco H 174!

H 174 is one of a complete line of Nalco weed control chemicals, both dry and liquid, in wide use by railroads and industries throughout the world.

GEARED TO PROGRESS
P R I
MEMBER

National Aluminate Corporation is now

NALCO CHEMICAL COMPANY

6200 West 66th Place • Chicago 38, Illinois

In Canada — Alchem Limited, Burlington, Ontario

Nalco®

PRODUCTS . . . SERVING INDUSTRY THROUGH PRACTICAL APPLIED SCIENCE

WATER TREATMENT . . PAPER MILL PROCESS CHEMICALS . . REFINERY CORROSION CONTROL . . ION EXCHANGE . . WEED & BRUSH CONTROL . . SLIME & ALGAE CONTROL . . PROCESS ANTIFOAMS & COAGULANTS . . PETROLEUM CATALYSTS . . COMBUSTION CATALYSTS® FUEL OIL STABILIZATION . . CHEMICAL INTERMEDIATES

You fill out the coupon

PUBLICATIONS DEPARTMENT
BETHLEHEM STEEL COMPANY
BETHLEHEM, PA.

Please send me a copy of your completely revised booklet, "HIGH-STRENGTH BOLTING FOR STRUCTURAL JOINTS."

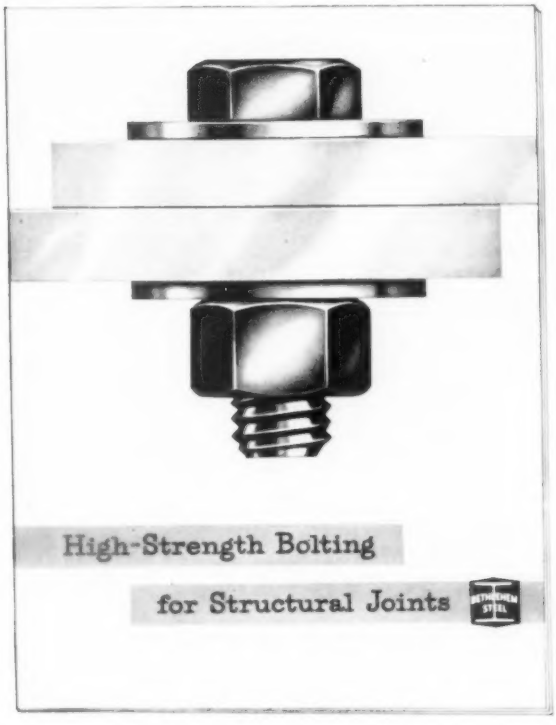
☐ *Also send me Bulletin #35 describing "Turn-of-nut" torquing method.*

Name _____

Company _____

Street _____

City _____ Zone ____ State _____



We'll send you this booklet

NEW EDITION OF AN OLD FAVORITE. 20 pages of the kind of information you want: torquing methods, dimensional standards, specifications for materials and assembly, and other data. 32 illustrations. Also available: Bulletin #35 giving full details on how to torque using "Turn-of-nut" method.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.
Export Distributor: Bethlehem Steel Export Corporation

BETHLEHEM STEEL

BETHLEHEM STEEL

Today—he could control the entire railroad—neatly

J. Pluto Bolivar earned $16.50 a week before he was fired for inefficiency—he had routed a carload of muskmelons to Fort Sill, Oklahoma, and a carload of howitzer shells to the Pleasantville Produce Yard.

Things have come a long way since that explosive afternoon in Pleasantville. Today, train movements on an entire railroad can be accurately and safely directed from *one* control center. And one company, Union Switch & Signal, can supply every bit of equipment to do the job.

Union Switch & Signal control systems cut down on wasted car time. CTC can save a minute a mile in schedule time. A Union Velac® Automatic Classification Yard System can cut terminal classification time in half. Users report that their investments have already returned 15% to 30% a year. Pays for itself in three to five years! Get complete facts from any Union Switch & Signal Representative. And if you appreciate railroad nostalgia like we do, write for an 11" x 14" print of this illustration suitable for framing.

"Pioneers in Push-Button Science"

UNION SWITCH & SIGNAL

DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

SWISSVALE, PENNSYLVANIA

NEW YORK . . . PITTSBURGH . . . CHICAGO . . . SAN FRANCISCO

RAILWAY AGE *weekly* October 12, 1959 • Vol. 147, No. 15

Week at a Glance

Departments

• Editorial and Executive Offices New York 7, 30 Church St.

JAMES G. LYNE, Editor
ROBERT G. LEWIS, Publisher
Executive Editor ..... Joe W. Kizzia
Managing Editor ..... Fred C. Miles
News Editor ..... Luther S. Miller
Traffic-Transportation .. G. C. Hudson
Mechanical ..... C. L. Combes
F. N. Houser, Jr.
Signaling & Communications ..... Robert W. McKnight
Robert J. Barber
Associate Editors ..... Rod Craib
Harry M. Grayson, Jr.
Librarian ..... Edith C. Stone
Editorial Assistant ..... June Meyer
Art Director ..... Russell S. Rypsam
Design and Layout ..... Joel Petrower
Production Manager .. Joseph J. Menkes

• Chicago 3, 79 West Monroe St.
Western Editor ..... Gus Welty
Mechanical ..... Norman E. Gillespie
Engineering ..... M. H. Dick
R. E. Dove
E. W. Hodgkins, Jr.
Purchasing & Stores ..... Bert Enos
Editorial Assistant ... Wanda Brown

• Washington 4, National Press Bldg.
Washington Editor ... Walter J. Taft

Railway Age, established in 1856, is indexed by the Business Periodicals Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.

Published weekly by the Simmons-Boardman Publishing Corporation at 440 Boston Post Road, Orange, Conn. Second-class postage paid at the Post Office at Orange, Conn. James G. Lyne, chairman of the board; Arthur J. McGinnis, president and treasurer; Duane C. Salisbury, executive vice-president; George Dusenbury, vice-president and editorial and promotion director; Robert G. Lewis, Joe W. Kizzia, M. H. Dick, M. J. Figa, R. C. Van Ness, vice-presidents.

announcing a NEW piggy-back trailer... the Trailmobile PB-68

Here is a new Trailmobile especially designed for punishing piggy-back service. Featuring Trailmobile's famous Integral Post construction, it is ideally suited to withstand the impacts of normal rail car coupling and the rigors of heavy cargos and city shuttling. And, this extra durability means low maintenance costs and continued good appearance throughout years of profitable service. ■ Despite its great strength, the PB-68 is extremely lightweight... lighter, in fact, than some aluminum units. And its big cargo space means maximum payloads on every trip. ■ The PB-68 is just one of the many design possibilities offered by Trailmobile's CID* concept, which lets you match trailer to your operating conditions. Call your nearest Trailmobile office for full details. *Customer Individualized Design

TRAILMOBILE INC.

TR-792

Cincinnati 9, Ohio • Springfield, Missouri • Longview, Texas • Berkeley 10, California

PULLMAN

Week at a Glance CONT.

Current Statistics

Operating revenues	
8 mos., 1959	$6,621,918,760
8 mos., 1958	6,164,653,199
Operating expenses	
8 mos., 1959	5,191,899,748
8 mos., 1958	4,983,068,163
Taxes	
8 mos., 1959	711,116,463
8 mos., 1958	589,523,718
Net railway operating income	
8 mos., 1959	502,889,206
8 mos., 1958	393,702,713
Net income estimated	
8 mos., 1959	365,000,000
8 mos., 1958	286,000,000
Average price railroad stocks	
Oct. 6, 1959	105.68
Oct. 7, 1958	97.33
Carloadings revenue freight	
39 wks., '59	23,304,811
39 wks., '58	22,166,077
Freight cars on order	
Sept. 1, 1959	37,172
Sept. 1, 1958	25,611
Freight cars delivered	
8 mos., 1959	27,435
8 mos., 1958	32,533

Advertising Sales Department

Duane C. Salsgiver—district sales manager

New York 7, N. Y., 30 Church st., WOrth 4-3060
J. S. Vreeland—vice president;
F. T. Baker—district manager;
J. C. Lydav; W. E. Glasby

Chicago 3, Ill., 79 W. Monroe st., RAndolph 6-0794
J. R. Thompson—vice president;
J. W. Crossett—district manager;
Hale Carey

Cleveland 15, Ohio, 1501 Euclid ave., MAin 1-4455
H. H. Melville—vice president;
H. M. Blunt—district manager

Philadelphia, Pa., Jericho Manor, Jenkintown, Pa., TUrner 7-4526
W. E. Glasby—district manager

Pittsburgh 19, Pa., Suite 203, Carlton House, GRant 1-8186
C. J. Fisher—district manager

Atlanta 9, Ga., 22 Eighth st., N. E., TRinity 2-6720—J. S. Crane

Dallas 19, Tex., 3908 Lemmon ave., LAkeside 3322—Joseph Sanders

Los Angeles 17, Cal., 1336 Wilshire blvd., HUbbard 3-0390
Laurence A. Sparks—vice president

San Francisco 11, Cal., 244 California st., EXbrook 7-4990
J. C. Gray—district manager

London E. C. 1, Eng., 8/9 Clerkenwell Green, Sibley-Field Publishing Co., Ltd.

Frankfort am Main (16), West Germany, Wittelsbacher Allee 60
Georg J. Linder—Continental European Representative

Tokyo, Japan
Shigeo Horie, 74
Ginza Marunouchi
George E. Olson

Subscription to railroad employees only in U.S. possessions, Canada and Mexico, $4 one year, $6 two years, payable in advance and postage paid. To railroad employees elsewhere in the western hemisphere, $10 a year. In other countries, $15 a year. Single copies 60¢ except special issues. Address all subscriptions, changes of address, and correspondence concerning them to: Subscription Dept., Railway Age, Emmett St., Bristol, Conn.

Circulation Dept.: R. C. Van Ness, Director of Circulation. 30 Church St., New York 7, N. Y. POSTMASTER—SEND FORM 3579 to EMMETT ST., BRISTOL, CONN.

Printed at the Wilson H. Lee Co., Orange, Conn.

Short and Significant

A new hotbox detector will be available . . .

from General Railway Signal Co., which has signed a license agreement to manufacture and market a detector under a patent issued to International Telephone & Telegraph Co. The agreement gives GRS the right to make and sell the detector in the U. S. and Canada.

The carriers, the unions and the NMB . . .

have set their timetable for further talks on the current series of wage disputes. Carrier conference committees will meet with the BRT Oct. 13, with the BLF&E Oct. 20. Mediators will enter the picture later this month in conferences involving carrier disputes with the BLE, Oct. 26; ORC&B, Oct. 27; and the SUNA, Oct. 28.

August's estimated net income . . .

of Class I railroads was down $55 million from last year—$26 million compared with $81 million for August 1958. The AAR statement also shows that the estimated net for this year's first eight months was $365 million, up $79 million from the $286 million reported for the same period of 1958. The rate of return for the 12 months ended with August was 3.16%.

Per diem rate increase . . .

from $2.75 to $2.88 is now being voted on by railroad subscribers to Section 5a Agreement No. 7, the Bulwinkle-Act pact covering freight-car rentals, which is administered by the AAR. Distribution of the ballot was ordered by the AAR board of directors after it approved the increase which was recommended by the General Committee of the Association's Operating-Transportation Division.

Government guaranty of a $1,000,000 loan . . .

for the Georgia & Florida was approved last week by the ICC. The loan will be used to help finance maintenance and rehabilitation of 182 miles of roadbed and track. The Georgia & Florida earlier received a government guaranty of a $934,960 loan to finance the acquisition of 100 box cars (RA, May 18, p. 7).

Government involvement . . .

in the railway labor negotiations seems inevitable, NP President Robert S. Macfarlane told a civic group in St. Paul, Minn., last week. He said it's "inconceivable that the government would tolerate a tie-up of any length, because experience has demonstrated that when the railroads cease operations the entire economy is paralyzed almost immediately."

■ **WHEN 16 RAILROADS GET TOGETHER...**
your routing or diversion plans can be as flexible as you want them!
T.P.&W. connects directly with these railroads – and thus can give you the double advantage of by-passing big city rail yards and transferring to any direction – east, west, north or south.
Add to this the high level of service T.P.&W. gives shippers at all times, whether through personal contact by a sales representative or expert inspection and care of a car in transit.
You'll have the reasons why traffic men are adding "via T.P.&W." to bills of lading.

TOLEDO, PEORIA & WESTERN RAILROAD COMPANY

Offices in 17 principal cities

General Offices: Peoria, Illinois

New Roads Get Slumbercoaches

► **The Story at a Glance: As AAR President Daniel P. Loomis, ICC Chairman Kenneth H. Tuggle and Military Traffic Management Agency's Maj. Gen. I. Sewell Morris re-affirmed their faith in the future of railroad passenger service last week, passenger officers themselves gave tangible proof of the vitality of their business.**

At the annual meeting of the American Association of Passenger Traffic Officers, one road after another reported to the Committee on Ways and Means of Increasing Passenger Traffic their own favorite techniques for boosting business. Two roads, the New York Central and the Missouri Pacific, announced plans to lease Slumbercoaches from the Budd Co. and a third, the Northern Pacific, indicated that it, too, would probably become a 'newcomer' to the coach-sleeper operation, in which the Burlington and the Baltimore & Ohio are already operating successfully.

The first new passenger equipment on the New York Central in recent years will be four Budd Slumbercoaches, Passenger Sales Manager R. R. Spangenberg told the AAPTO in Washington.

The Slumbercoaches will be leased from the Budd Co. and will see service first with the Oct. 25 timetable change. Two of the 40-passenger sleepers will be assigned to the Twentieth Century Limited, which will be restored to its former status as an all-sleeping-car train. Reserved seat coaches that have been handled on the Century will be assigned in the fall timetable to the Pacemaker eastbound and the Ohio State Limited westbound. Two other Slumbercoaches, which may be given a different name on the Central, will later be put in service on the New England States between Boston and Chicago and return. Fares on the new service, the Central said, will be similar to those the B&O and the Burlington have already set.

At the same time, the AAPTO was told that the Missouri Pacific and the Baltimore & Ohio have worked out plans to extend Slumbercoach service from the B&O route between Baltimore, Washington and St. Louis on to San Antonio, Tex. Like the Central Slumbercoaches, the MoPac run will go into service with the October timetable change. To make the service possible, the Missouri Pacific will lease one of the remaining Budd Slumbercoaches, which will be placed in a pool with the three B&O Slumbercoaches now on the Baltimore-St. Louis run. Cars will run in the Texas Eagle and the National Limited.

This "will be our first experiment with Slumbercoach operation," the Missouri Pacific reminded the AAPTO, "the first Slumbercoach through the St. Louis gateway, and the first Slumbercoach service for Missouri, Arkansas and Texas . . . The Slumbercoaches will be operated by Pullman, with the fares on Missouri Pacific identical with those on B&O, i.e., $6.00 single and $10.80 double between St. Louis and Palestine . . . and $7.00 single and $12.60 double to Austin and San Antonio. Combinations of the already published rates in the same amounts on the B&O will be used for through sales."

A spokesman for the Northern Pacific confirmed reports that his road was planning to lease the remaining four cars of the Budd Co.'s original production run of 18 cars. This would allocate the cars five to the B&O, four to the Burlington, four to the New York Central, four to the Northern Pacific and one to the Missouri Pacific, with pooling arrangements between roads permitting all through runs to be covered.

If everything goes as planned, the Northern Pacific Slumbercoaches will go into service on the North Coast Limited between Chicago and Seattle sometime in November, probably on a pool basis with the Burlington.

The Missouri Pacific, the Kansas City Southern and the Milwaukee reported considerable success in experiments in honoring coach tickets in Pullman cars. The Chesapeake & Ohio commented that its program had not been in force long enough for results to be evaluated, while the Atlantic Coast Line noted that results of its experiment between Jacksonville and Atlanta were "disappointing, and the fares were allowed to expire."

Roads reporting success with group movements, tours, excursions, etc., included the Missouri Pacific, the Louisville & Nashville, the Atlantic Coast Line, the Burlington, the Rio Grande

Symes Backs Erie-DL&W Merger

Support for the proposed Erie-Lackawanna merger came last week from James M. Symes, president of the Pennsylvania. He appeared as a surprise witness at ICC hearings in Washington.

"I think the proposed merger is desirable and, if consummated, will go a long way in serving the cause of mergers. It would be a catastrophe if these two railroads went bankrupt when a merger would have made them solvent," said Mr. Symes.

Railroads in the case as opponents of the merger include the Lehigh Valley and the Wabash, which are owned principally by the PRR. Referring to their position and that of other protesting interveners, Mr. Symes said he thought their fears of traffic losses could be allayed by agreements.

"This case," he added, "is so important to the entire industry that minor differences of opinion should not be permitted to obstruct the overall progress that this merger would create."

In addition to that of the LV and Wabash, the remaining railroad opposition comes from the Nickel Plate. The New York Central is also in the case, taking the position that it would not object if Lackawanna gateways are kept open. Other roads which originally took like positions have since received what they consider satisfactory commitments on the open-route issue. They are the Akron, Canton & Youngstown, Boston & Maine, New Haven and Lehigh & Hudson River.

Witnesses at the Washington hearing, in addition to Mr. Symes, were officers of the Lackawanna and Erie, including their respective presidents, P. M. Shoemaker and H. W. Von Willer. They appeared for cross-examination, as did William Wyer of Wyer, Dick & Co., the consulting firm which made the basic studies supporting the merger proposal. The Nickel Plate, Wabash and NYC won a round when the Com-

(Continued on page 37)

and the Rock Island. The Rock Island reported that student trips had produced $106,000 in net revenue in 1959, up 46.3% from 1958.

Reduced fares drew favorable comment from several roads, among them the Missouri Pacific, the Kansas City Southern, the Rock Island and the B&O. The B&O reported the results of a study on its St. Louis line showing that "the traffic and revenue picture on our six St. Louis trains has improved substantially and we are all well pleased with the results." The B&O attributed the improvement to three things: reduced fares, addition of Slumbercoaches to the St. Louis run, and a general improvement in economic conditions. This was a substantial improvement, B&O figures showed. St. Louis tickets in July, 1959 were sold totaling $113,000, up 46% over the corresponding month of 1958.

AAR President Loomis told the passenger traffic officers "it has been suggested that any meeting of railroad passenger men these days is something in the nature of a wake. This certainly cannot be said of your meeting here, however, if what I have observed is a true measure of your mood."

Among his reasons for optimism, Mr. Loomis pointed out that the railroads are still carrying 400 million passengers a year, that the railroads are still the only "all-weather carriers on which travelers can depend in any season, day after day, year after year," that city planners are more and more turning to "high-capacity rail systems as the most effective way to stem the tide of urban strangulation," and finally, that passenger railroads would have a vital role "in any future national emergency that lasts more than a few days."

The fundamentals of the passenger problem, Mr. Loomis said, are: "We must make people want to ride our trains. We must make it easy for them to do so, and we must find a way to cover costs and if possible to make money while we're at it."

Commending passenger officers for their efforts in connection with his first two points, Mr. Loomis emphasized that the real problem was his third point. Here, he said, the passenger officers needed the public's help.

"If people really want to help preserve passenger trains," Mr. Loomis said, "they should not simply blast rail management but should turn instead to the nation's legislators and demand equality of treatment and a fair deal for the railroads."

Chairman Tuggle of the ICC told the AAPTO that he was glad to discuss "a transportation problem of mutual concern . . . the railroad passenger-deficit problem and its continuing threat to interstate commerce." The passenger officers should not expect, Commissioner Tuggle said, to "pack up all your troubles in the government's old kit bag, but government at all levels, including the Interstate Commerce Commission, can and should create the kind of favorable climate which will encourage and foster lawful remedial measures by railroad management designed to revitalize the railroad business."

Noting that railroads today are carrying no more passengers than in 1890,

(Continued on page 38)

Watching Washington *with Walter Taft*

• **A WAGE INCREASE** of two cents per hour, effective Nov. 1, is now pretty well assured for railroad employees working under agreements with escalator clauses. Those clauses are tied to the Bureau of Labor Statistics' cost-of-living index. The September 1956 index of 117.1 is the base, and up or down adjustments of one cent per hour are required each six months for each half-point change from that figure.

THE NOV. 1 ADJUSTMENT will be determined by September's index, due next week. It is not expected to be much different from August's 124.8. That would put it 7.7 points above the 117.1 base and thus build up the escalator-clause increases to 15 cents per hour, i.e., two cents in addition to the 13 cents already provided by four previous raises.

MOVEMENTS of 3 10 of a point away from this August figure would be required to change the 2-cent prospect. If such a movement were upward, the raise would be three cents per hour. If it were downward the raise would be one cent. To require a cut, the index would have to drop 1.3 points—to 123.5. No cut has been called for since the escalator clauses became effective.

THE ESCALATOR CLAUSES are in the agreements which also have the three-year moratorium provisions. Those provisions stipulate that new rules demands may not be filed until Nov. 1, and that new wage adjustments may not become effective until after that date.

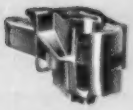
THE END OF THIS FREEZE, however, does not mean the end of escalator clause raises. That's because the contracts, except for their moratorium provisions, are on the usual pattern of such agreements. They remain in effect until successor contracts take over.

• **AIRLINES** now handle more than ¾ of the combined rail and air first-class passenger business—and more than 40% of the coach traffic. This is the latest showing, on the basis of 1958 figures compiled by the ICC's Bureau of Transport Economics and Statistics.

FIRST-CLASS BUSINESS of the railroads is shown at 4,249 million passenger-miles. It was off nearly a billion passenger-miles from the previous year; and it was less than half of the 1952 business which totaled 9,504 million passenger-miles. It was in 1952 that the airlines first topped the railroads with 9,775 million first-class passenger-miles. The first-class air business in 1958 totaled 14,391 million passenger-miles.

COACH SERVICE was not offered by the airlines until about 10 years ago. In 1949, their coach business amounted to only 249 million passenger-miles, 1.2% of the combined rail and air coach total. That has since risen to more than 10 billion passenger-miles, while railroad coach business, excluding commutation, has dropped from 20¼ billion to 14¼ billion passenger-miles.

Any way you look at it...

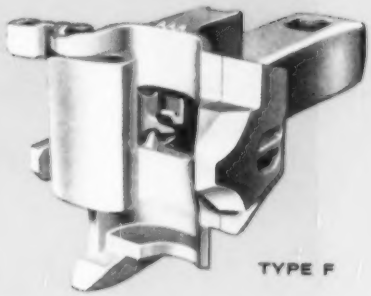


SHARON 10A

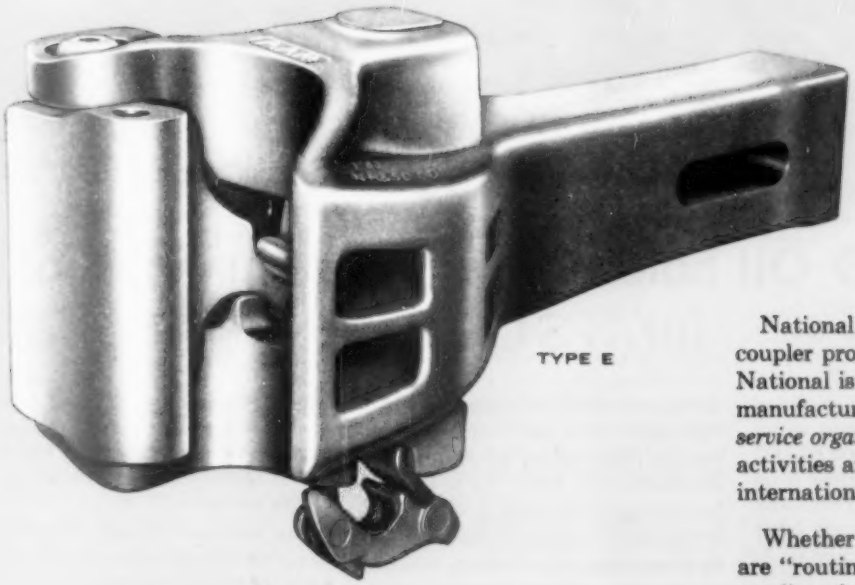
NATIONAL SPELLS COUPLER SERVICE

TYPE H

key to successful railroading



TYPE F



TYPE E

National is more than just a coupler producer. Indeed, National is both a coupler manufacturer and a coupler *service organization* whose activities are both national and international in scope.

Whether your coupler problems are "routine," or whether they are "special"... it will pay you to call in the *Coupler Specialists — National.*

COUPLERS
YOKES
DRAFT GEARS
FREIGHT TRUCKS
JOURNAL BOXES

AA-5000

GEARED TO PROGRESS
P R I
MEMBER

NATIONAL MALLEABLE and STEEL CASTINGS COMPANY

Established 1868

Transportation Products Division
Cleveland 6, Ohio

International Division Headquarters
Cleveland 6, Ohio

Canadian Subsidiary
National Malleable & Steel Castings Company of Canada, Ltd.
Toronto 1, Ontario

RPM DELO Oil holds down maintenance costs for... SOUTHERN PACIFIC

Judge any way you like: test results or mechanical and operating department records. You'll find that "RPM DELO" reduces wear and keeps engines clean between regular overhauls. That's why Southern Pacific, like so many other major Western Railroads, continues to use RPM DELO Oil.

Longer service life was the objective more than 20 years ago, when Standard Oil Company of California developed the first successful compounded oil for high-speed diesel engines.

Though rudimentary by present-day standards, this first "RPM DELO" lowered operating costs to economical levels, stimulating diesel engine design.

By preventing ring sticking, reducing engine wear, and maintaining a satisfactory level of overall engine cleanliness, RPM DELO Oil quickly won approval of engine manufacturers.

Constant research, both independently and in cooperation with SP and other forward-looking railroads, has kept "RPM DELO" ahead of diesel engine design and use.

Today, a complete family of RPM DELO Oils gives railroad users a choice of lubricants for various engine designs, operating conditions and fuel characteristics.

Like more information? Just call your local representative, or write:

LUBRICATING OILS RPM DELO

STANDARD OIL COMPANY OF CALIFORNIA, San Francisco 20
THE CALIFORNIA OIL COMPANY, Perth Amboy, New Jersey
• **STANDARD OIL COMPANY OF TEXAS,** El Paso
• **THE CALIFORNIA COMPANY,** Denver, Colorado

TRADEMARKS "RPM DELO" AND CHEVRON DESIGN REG. U.S. PAT. OFF.

RETARDER CLASSIFICATION YARDS can produce substantial savings.

How Signal Officers Can 'Tell the Boss'

Here's how signal engineers of three railroads keep their top officers informed about the latest signaling practices and systems. These signal engineers follow a policy of "continuous education" of top management on improved signaling. On a fourth railroad, a communications officer tells how he follows a similar pattern in keeping his management advised about the need for modern communications facilities.

Practice on the Southern Pacific is to keep management currently informed as to whether there is need for any changes or additions to the signal system, says signal engineer H. B. Garrett. "We endeavor," he says, "to work out cost figures and savings which would accrue by such improvements, so that all concerned are in agreement with the proposal before the annual budget is drafted. When so handled, we have experienced little difficulty in obtaining authority for additions and betterments, where the cost can be justified."

"We believe it essential that all facts be developed, such as improvement in handling of traffic, and savings, which can be made by such improvements. Once these factors are developed and presented to management, we find that obtaining authority to place the project on the budget is usually a formality only. And when finally approved, the work can be authorized quickly. The situation frequently develops that if the savings are attractive enough, new proposals may take precedence over other projects previously included in the budget."

The situation on the Burlington is described by A. L. Essman, chief signal engineer, system. "Practically every operating officer on our line, from the president down, has a keen sense of signal value, primarily because they understand, to a great extent, the operation of our many signal systems. You might say that with such a situation, it should not be difficult to 'sell signals,' but the situation did not develop overnight. It started several years ago, when members of our present management were working as superintendents. While serving in such positions, they displayed keen curiosity about signaling and always attempted to have the curiosity satisfied. As problems arose, they asked local signal supervisors, or members of the chief signal engineer's staff, how our system functioned.

"From this," Mr. Essman adds, "might come the answer as to how to better acquaint management with improved railroad signaling; that is, for signal departments to work closely with trainmasters, assistant superintendents and on up through the ranks, so that ultimately when these men advance to where they might be controlling, insofar as additional signal projects are concerned, they have been fully informed of the benefits of signaling.

"We keep our operating officers advised of new advances in signaling, and also about new techniques in fields outside of railroading which might be beneficial in conjunction with signaling. Similarly, they are advised of the difficulties we encounter, and given explanations as to the cause of some of our interruptions.

"It must be demonstrated by the signal department that its projects have been properly engineered and tailored to fit traffic demands with a minimum of expenditure, and that they will incur a minimum of maintenance expense. When these things have been done through the years, first appraisals by management of signal installations usually gain acceptance."

On the Lehigh Valley, signal department supervision, under the chief engineer—signals and communications, works closely with top management on all matters of improved signaling. W. J. Varner, the LV's assistant signal construction engineer, says it is necessary to present new signal ideas when they come up, not when the annual improvement budget is prepared. This, he stresses, allows installations, involving economy and efficiency, to be put into operation sooner, benefiting the signal department and the railroad as a whole.

Every installation involving improved railway signaling should be presented to railroad management on the basis of its own merits, says Mr. Varner. One selling factor often involved is savings, which can be of two types: (1) direct savings, as in the case of signal installations involving elimination of manually protected grade crossings or manually controlled interlocking; or (2) savings, not precisely measurable in dollars and cents, which result from reduced maintenance because of elimination of track and equipment. The second type is often increased with the installation of double-running.

"With the latest improvements in signaling, these installations can be made with an increase in safety. Safety, as we in the signal department know, is the most important reason for any type of signaling.

"Improved signaling reduces operating time and operating costs, resulting in savings to the railroad, and often in increased business. This is important, because railroads must constantly compete with other carriers on a cost and time basis.

"Of course, the job of presenting the case for improved signaling is difficult or simple according to the relationship between signal department supervision and top management. If management has an open mind, the presentation is easier. At staff meetings and on inspection trips, informal discussion often opens the door for formal presentation.

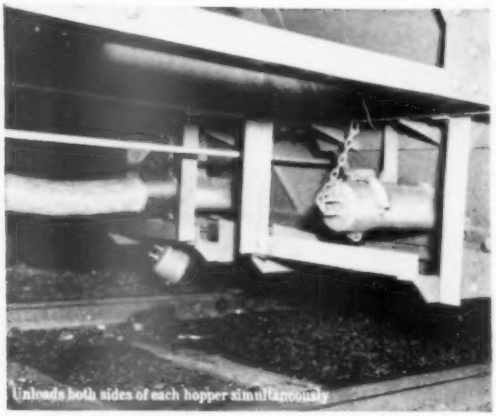
(Continued on page 20)

Now railroads can offer shippers of granular or powdered commodities faster, simpler pneumatic unloading. One man following three simple steps can hook up this pneumatic unloader in a matter of seconds. Just unscrew the unloading cap, open the air inlet and insert the suction hose to complete the operation. Additional features include: simple fool-proof control by damper adjustment and fixed metering; no special tools required to

One man does the job in 3 simple steps

ACF SHIP-O-MATIC: THE "ONE-

Sales Offices: New York • Chicago • St. Louis • Cleveland •

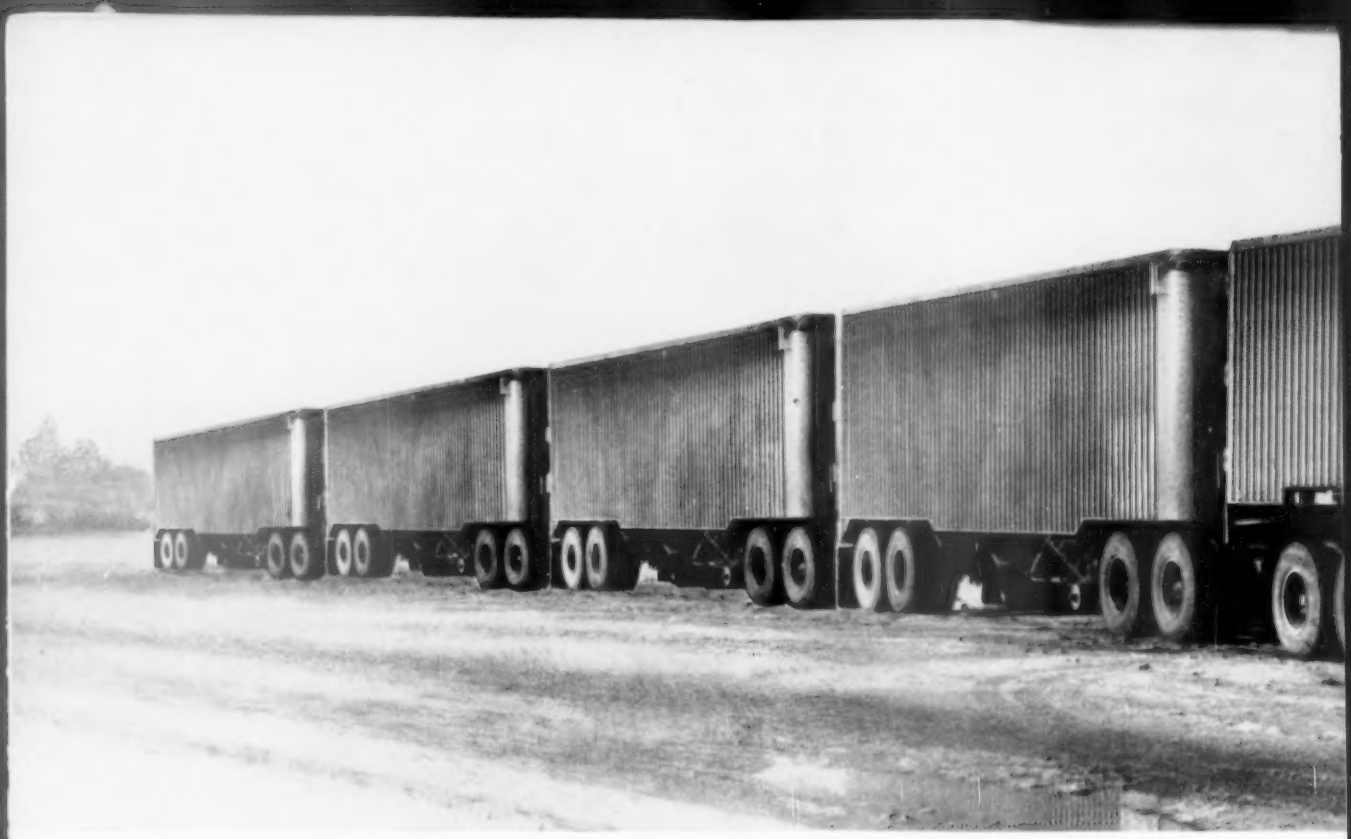

Unloads both sides of each hopper simultaneously

operate: pneumatic outlets adaptable to any size vacuum conveyor system: operates with pneumatic or gravity unloading interchangeably. ACF "SHIP-O-MATIC" Covered Hopper Cars are available in 4 sizes: 2,000, 2,900, 3,200 and 3,500 cubic feet. Contact any ACF sales office for information on price, design details, delivery.

AMERICAN CAR AND FOUNDRY DIVISION

acf Industries, Incorporated, 750 Third Ave., N.Y. 17, N.Y.

MAN UNLOADING HOPPER CAR"



NO FIVE-UNIT HIGHWAY RIGS like our composite rendering above have yet appeared—but they're possible.

Turnpike 'Trains' May Become

Truckers, faced with the continuing loss of highway freight to Plans II, III and IV piggyback, are turning in increasing numbers to multiple trailer units to cut their ton-mile costs. Long a familiar sight in the West, tandem trailers took on a new significance when they began appearing on Eastern toll roads last winter. Now there's even talk of "five-unit turnpike trains."

The major breakthrough for the double-bottom units came when the New York Thruway announced that it would conduct tests on multiple units with an overall length of 98 feet and a maximum weight of almost 65 tons (RA, Feb. 16, p. 52). Prior to the New York tests, tractors hauling more than one trailer were generally restricted to the West, where trailer restrictions embodied in state laws kept the maximum overall lengths down to 60 and 65 feet and maximum gross weights between 35 and 40 tons.

Before the New York Thruway, which like many toll roads has the right to set its own size and weight ceilings, began testing the 98-foot units, New York State highway laws permitted a maximum length for a tractor-semi-trailer combination of 50 feet and a maximum weight of 130,000 lb gross. Only 18 states permitted operation of double bottoms on state roads.

At the time the New York tests began, Thruway engineers said, "unless new measures are introduced to enable trucking to continue its growth in the face of rising costs and lower tariffs, there will probably be a return of some freight from the highways to the railroads."

On the New York Thruway, tolls for the tandem trailers are twice the rate for single trailers of the same class. On the Massachusetts Turnpike, which permits the same kind of operation as the Thruway, tolls are based on the number of axles, which can be as many as nine on a double-bottom unit compared with the maximum of five on single tractor-trailer combinations. On the Kansas Turnpike, where tests of double bottom units are also being conducted, tolls for the tandem trailers are $23.60 for the 236-mile road, compared with $9 tolls for the largest single-trailer rigs.

The truckers gain as well as the turnpikes. A double bottom trailer combination requires only one power unit and only one driver or driving team. With labor costs and motive power looming as large items in truckers' budgets, the advantages of double bottoms are obvious. This is the same kind of advantage that Plan I piggyback offers: the chance to handle all the freight that is offered without maintaining equipment and crews at the level required by peak demand.

At least one trucker, the J-E-M Transportation Co., Inc., of Middletown, N.Y., has plans for using double bottoms in a rail-competitive form of highway piggyback. J-E-M has filed application with the New York Thruway and the state's Public Service Commission for permission to operate tractor units hauling other carriers' and shippers' trailers in tandem units over the Thruway.

Presently a milk carrier in New York State, J-E-M is looking for ways to expand. It considers double bottoms a most promising field, for hauling trailers as well as for hauling freight. If J-E-M is able to carry out its plans, it will offer shippers in the Thruway area that are too small to operate double bottoms

Truckers' Answer to Piggyback

themselves a chance to cut their costs by using the new technique.

In announcing that his company had asked for authority to operate double bottoms, J. Everitt Morley, president of J-E-M, predicted that there were possibilities in the future for hook-ups of three, four or five trailers, when tractors are perfected that are the right size and weight to pull the load safely. Bigger power will be needed for these, he said, but there will be no particular problems with couplings or brakes. Noting that there are no tests of anything larger than a double bottom at the moment, he added that there were no "real problems" in the way of the larger units.

Turnpike double-bottom activity is now centered in these areas:

New York: First to test the new "king-size" tandem trailers, the New York Thruway Authority approved the use of these units effective July 1, 1959. Since tandem combinations are not permitted on regular highways in the state, Thruway has announced that it will construct marshalling areas for the hook-up and break-up of the units at nine locations en route. Six trucking companies that participated in the tests received the initial double bottom permits; 67 other companies immediately applied for similar rights.

Massachusetts Turnpike: The Massachusetts Turnpike, which participated in the Thruway test runs, has adopted similar rules and regulations permitting tandem-trailer operation. Because the Mass Pike links with the New York Thruway, double bottoms over the two can operate through from Boston to the Pennsylvania border.

Kansas Turnpike: The Kansas Turnpike Authority has been conducting tests on double bottoms between Kansas City and Wichita. Test equipment consists of two 20-ft trailers, but Turnpike regulations permit an overall length of 105 ft and a gross weight of 65 tons.

Illinois: The size and weight regulations on the Northern Illinois Toll Highway are the same as for other Illinois highways. The Chief Engineer of the Illinois State Toll Highway Commission reports: "We have a minimum 40 mph speed limit on the Toll Highway, which speed must be maintained by all vehicles using the road without exception. I doubt that a unit consisting of a multiple trailer combination would be able to attain and maintain the minimum 40-mph speed." (Nevertheless, Cooper-Jarrett truckers of Chicago have announced that they have an option on land near the new Illinois Toll Road to be used as a general truck terminal and as a marshalling yard for double-bottom units.)

Ohio: The Ohio Turnpike Commission is giving consideration to the use of double bottoms, but no decision has been reached. State law in Ohio permits combinations not exceeding 60 ft in length, with the second trailer a full rather than a second semi-trailer. Quite a few of this size and type are already operating on the Ohio Turnpike.

In a number of states, existing regulations bar double-bottoms from toll highways. These include Connecticut, Florida, Kentucky, Maine, New Hampshire, New Jersey, Oklahoma, Pennsylvania, Texas, Virginia and West Virginia. Indiana's East-West Toll Road is exempt from state regulations, but no rules have been adopted applicable to double-bottoms and no tests have been made officially.

Burlington's super equipment makes Burlington's super service!

Come up with a smart – but solid – railroading idea and you're bound to interest the Burlington. It's one of the country's most progressive railroads – was, in fact, the railroad that blazed the trail for today's Diesel locomotives.

This progressive tradition is still going strong at the Burlington. And one example can be found in the road's fleet of 100 DF cars equipped with Allison KAR-GO Bearings.

The Burlington bought this special equipment because it was hauling large shipments of home appliances on tight schedules.

The freight had to get there undamaged – so they got DF-Loader cars.

It had to get there *on time* – so they equipped those cars with KAR-GO Bearings to eliminate delay-causing hot-boxes and cut their costs to boot.

The KAR-GO buy was not a snap decision. The Burlington bought two KAR-GO Bearings 33 months ago, tested them, bought two car sets three months later. A repeat order for 10 car sets came seven months after that – and then, because of the way the KAR-GO Bearings had proved themselves, the Burlington installed 100 car sets in December 1958.

And what does the KAR-GO record look like? Couldn't be better. These DF cars have averaged 2,000-2,500 miles a month for a total mileage of 1,000,000 miles. *And there hasn't been one bearing failure in that time.*

Repeat orders are nothing new for KAR-GO Bearings. Of the 45 railroads using them today, 21 have ordered at least twice. They must be good for the railroads – good for profits. Try some KAR-GO Bearings in your next freight car conversion or new car build – they're bound to be good for you.

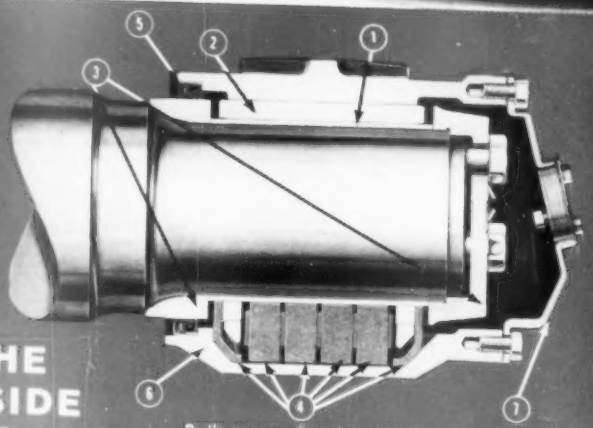
KAR-GO, ALLISON DIVISION OF GENERAL MOTORS
Indianapolis 6, Indiana

Two-thirds of the Diesel locomotive engines on American railroads are equipped with Allison connecting rod and crankshaft main bearings and piston-pin bushings.

Allison KAR-GO

JOURNAL BEARINGS

A product of and built only by the Allison Division of General Motors



THE INSIDE STORY

Built to run for thousands and thousands of miles, the Allison KAR-GO Cartridge Bearing gives you a sure answer to the hot-box problem at a low, low cost.

1. JOURNAL SLEEVE — Smooth, hardened surface for maximum bearing life — eliminates axle wear.
2. ALUMINUM ALLOY BEARING — Economical, precision-fitted, full round for maximum heat dissipation and prevention of axle roll-out.
3. THRUST RING AND CAP — Absorb lateral thrusts on hardened faces. Ring provides highly finished surface for oil seal.
4. FELT WICK LUBRICATOR — Insures adequate oil delivery to bearing — spring-loaded to make constant contact with journal sleeve.
5. OIL SEAL — Double lip, automotive type; keeps oil in and dirt and water out.
6. HOUSING — Rugged pearlitic malleable iron; completely encloses entire assembly; eliminates need for separate adapter.
7. COVER ASSEMBLY — Provides sealed closure, oil-filler plug and pressure-relief valve.

AAR APPROVED

for limited application in general interchange service

Having complied with standardization details, AAR approval has been obtained for wider application to freight cars in general interchange service.

Keeps lubricant sealed in—dirt sealed out.

Averages one inspection every 20,000 car miles.

Repays its cost in two years by cutting maintenance and operating expense.

Goes 200,000 miles on ½ pint of oil.

Offers railroads a low-cost solution to the hot-box problem.

HOW SIGNAL OFFICERS 'TELL THE BOSS' (*Continued from page 13*)

Sometimes, in this way, objections to improvements can be detected and overcome before the proposal is submitted."

One of the most important functions of any communications department head is impressing management with the importance of modern communications facilities, comments D. C. Hill, superintendent communications, Northern Pacific.

"This cannot be done by waiting for an annual budget meeting, but rather must be done constantly, whenever opportunity permits. I think it can be assumed that most management personnel follow with considerable interest the improvements made on other properties and the ways that many such improvements are being used to reduce operational costs. Communications is definitely playing its role in these cost reductions, as is evidenced by the many installations of extensive Teletype, radio and carrier systems, as well as transceiver and mechanized car accounting systems.

"Admittedly, to impress some managements with the need for modern communications facilities isn't always easy. In some cases, management wants to wait to see the results of improvements on other properties. In my opinion, this attitude can be countered, at least to some extent, by one of three basic approaches: (1) By showing that improved service will justify the expenditures required; (2) by showing that savings will justify the expense; and (3) by showing that money will be saved and that service will simultaneously be improved.

"As an example, when radio first came to the fore it was sold to management on some properties, initially, on the basis of the improved service which would result by providing end-to-end, wayside-to-train and, later, dispatcher-to-train communications. Communications people on other properties approached the sales problem from a different angle. By making a thorough study of the average number of train break-in-twos and resultant delays which had occurred on each subdivision in previous years, the approximate number of such break-in-twos and extent of delays which could have been avoided had radio communications been available, was determined. In addition, delays in yard switching were reviewed to determine how radio could reduce the cost of this phase of operations.

"This illustration is typical for most communication facilities. A new facility may have been sold to management by any one of the three approaches referred to above, but after having been given sufficient time to prove itself, the result usually was both improved service and reduction of operating costs of one kind or another. In many instances, these far exceeded the most optimistic estimates.

"Once money allocations are approved for communication facilities," Mr. Hill concludes, "we must not forget the importance of providing management with follow-up information and every possible evidence as to how much service has been improved, as well as the resultant savings. If this is done, management confidence is secured and each new selling assignment becomes less and less difficult, and subject only to operating revenue fluctuations."

Railroading  After Hours with Jim Lyne

A DAY—HOW MANY MILES?—From Baton Rouge, Paulsen Spence, who owns and operates the Louisiana Eastern, writes to suggest that a "day" should be 200 miles in freight service and 300 miles in passenger service—and that trainmen should be called on to do anything the dispatcher requires (including terminal switching) without extra pay. However, PS isn't in favor of abolishing the fireman's job or running extra-long trains.

"Featherbedding," says he, "means paying 8 hours' pay for 3 hours' work; paying one crew a day's pay for switching a few cars and another crew a day's pay for not switching them; putting conductors or engineers on tamping machines; refusing to extend yard limits in fast-growing cities; paying a conductor extra for backing a train into a station; requiring an electrician to be on the job when wheels are changed, etc."

'FULL CREWS' FOR TRUCKS?—You'd think, if safety considerations, as some insist, require three men in the cab of a freight locomotive—which doesn't have to be steered—that at least two men would be called for in the cab of a big truck, which does have to be steered. But that isn't the way it is.

A railroader has given me the results of some inquiries he's made on this subject. Where two men ride a long-haul truck cab, only one of them (as a rule) is on duty. The second man is asleep in an overhead bunk. It is very rare indeed that there is more than one man actively on duty behind the wheel—and, of course, there is no "dead man control." Buses, likewise, practically never have more than one driver on duty. He does all the work that both train and engine crews would do on a train, and has to steer besides.

If it's safety they're looking for, they'll get a lot more of it by putting a second man at the wheel on tractor-trailer combinations than by requiring a third man in freight locomotive cabs.

MASS TRANSPORTATION—As a substitute for "mass transportation," Norman Beckley of the UP's labor relations department, suggests "total transportation." Soo Line Agent F. J. Sommerfeld at Manfred, N.D., favors "cumulative transportation."

GE's Ken Ross, who first raised the question, says he sees nothing wrong with mass transportation when applied to freight—but, when applied to people, it's too impersonal.

Ken says in his letter:

"Watch passengers loading at certain big terminals. They let the Pullman passengers through the gate a half-hour ahead of time, while coach passengers have to wait until 10 minutes before departure—hence a scramble for good seats. And yet there's more profit in the coach passengers than in the first-class business. Maybe 'Metro transit' is the word. Let's not give up until we find one."

Real down-to-earth

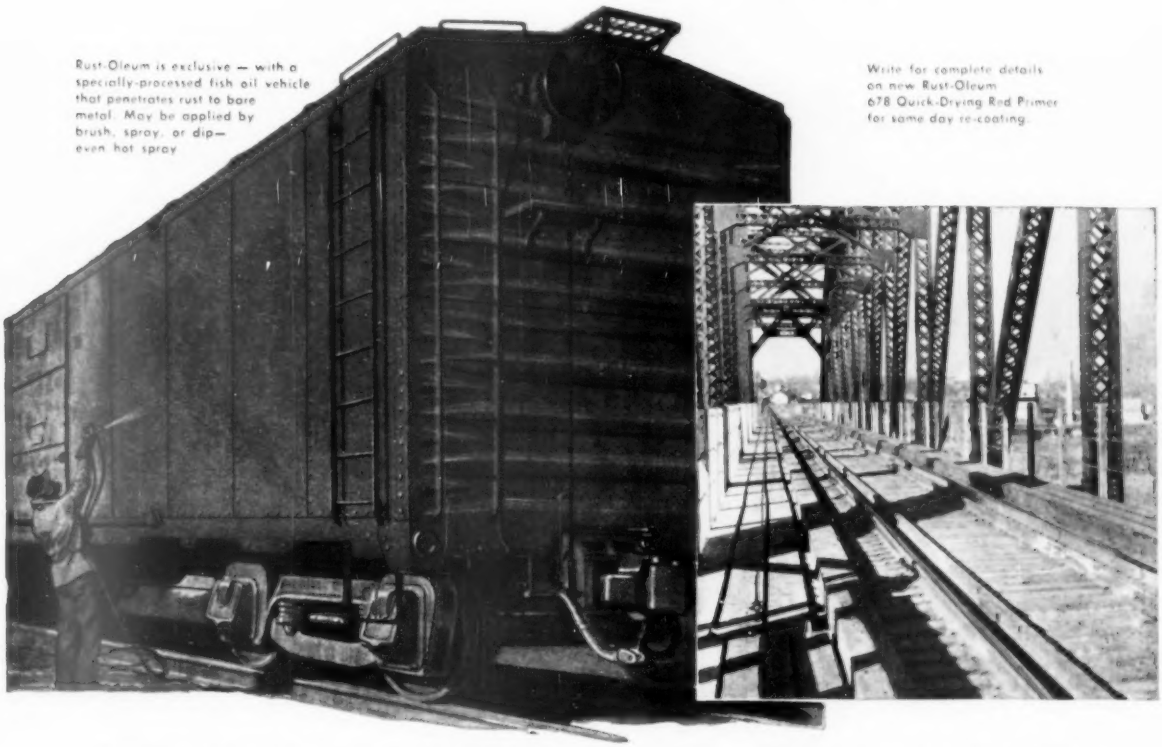
ECONOMY

Immediate Savings are yours with Rust-Oleum, because Rust-Oleum 769 Damp-Proof Red Primer may be applied directly over sound rusted surfaces after simple scraping and wirebrushing to remove rust scale and loose rust. Specially-processed fish oil vehicle *penetrates* rust to bare metal, as *proved* by leading technologists. This usually eliminates sandblasting, flame-cleaning, and other costly surface preparations, enabling one man to do the work of two or more.

Over-the-Years Economy is yours because Rust-Oleum lasts and lasts—stands up against fumes, heat, smoke, sun, moisture, steam, and weathering to provide lasting beauty on bridges, towers, tanks, rolling stock, signaling equipment, etc. Try it . . . *see for yourself* how Rust-Oleum *Stops Rust* and beautifies as it protects in many attractive railroad finishes, including red, black, gray, green, white, aluminum, blue, yellow, and many others. Attach the coupon to your letterhead and mail it today for free test sample.

Rust-Oleum is exclusive — with a specially-processed fish oil vehicle that penetrates rust to bare metal. May be applied by brush, spray, or dip—even hot spray.

Write for complete details on new Rust-Oleum 678 Quick-Drying Red Primer for same day re-coating.



RUST-OLEUM®

Distinctive as your own fingerprint. Accept no substitute.

STOPS RUST!®

ATTACH TO YOUR LETTERHEAD
SEND FOR FREE TEST SAMPLE

Rust-Oleum Corporation
2650 Oakton Street
Evanston, Illinois

Gentlemen: At no cost or obligation please send me a free test sample of Rust-Oleum 769 Damp-Proof Red Primer to be applied over rusted surfaces.

General Motors Locomotives Cut

The Union Pacific Railroad for more than six months has been operating a group of 20 General Motors model F9 freight locomotives. They look like any other group of F9's on the Union Pacific, but there's this big difference: each is equipped with maintenance-saving features of the new line of General Motors locomotives, just recently announced. The Union Pacific, in cooperation with Electro-Motive, undertook the field testing of 28 cost-saving features in a special project to confirm the reduced maintenance schedules which will be in effect on the new models.

The record to date: satisfactory performance at a 60 per cent reduction in scheduled maintenance!

The field-tested, cost-cutting components on the U.P. F9's are basic equipment on the two new series of General Motors locomotives. They offer positive reasons why *now is the time for a giant stride in motive power.*

Report from the Union Pacific . . .

Scheduled Maintenance 60%

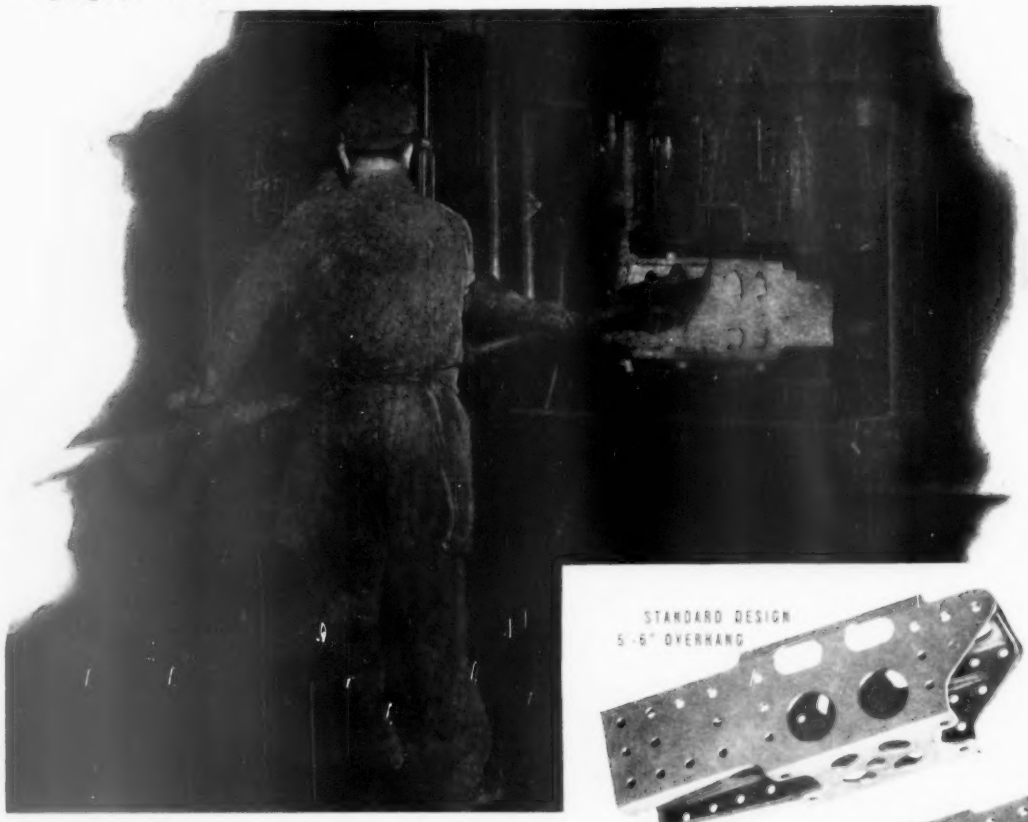
For details on the savings you can derive from locomotives containing these reduced maintenance features, contact your Electro-Motive representative.

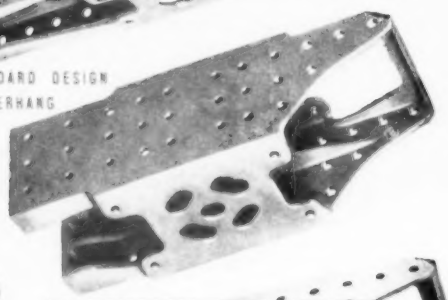
ELECTRO-MOTIVE DIVISION
GENERAL MOTORS · **LA GRANGE, ILLINOIS**
Home of the Diesel Locomotive
In Canada: General Motors Diesel Limited, London, Ontario

More power at less cost with General Motors great new line of locomotives—

1800 hp General Purpose GP-18 | 1800 hp Special Duty SD-18 | 2000 hp General Purpose GP-20 | 2400 hp Special Duty SD-24 | 1325 hp Road Switcher RS-1325

Check the **ECONOMICAL ADVANTAGES!**





Buckeye

HOT DIE PRESSED
BOLSTER CENTER FILLERS

One or Two Piece Design . . For Riveted or Slot Welded Application

- ✓ NO MACHINING REQUIRED
- ✓ CLOSE TOLERANCES
- ✓ MINIMUM WEIGHT
- ✓ MAXIMUM STRENGTH
- ✓ ALL FIT SURFACES SQUARE
- ✓ ALL RIVET HOLES DRILLED

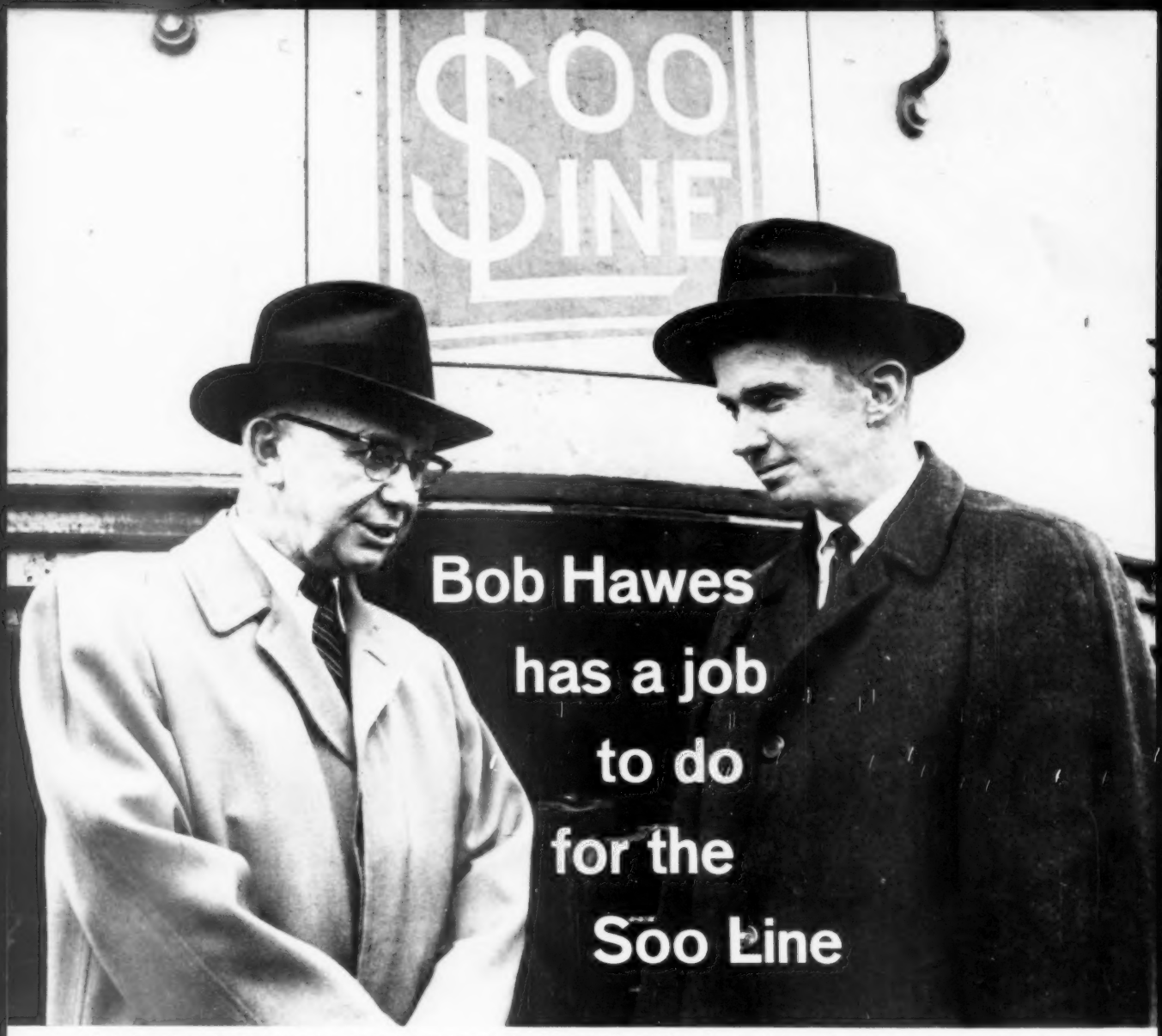
FOR COMPLETE INFORMATION
ON STANDARD OR SPECIAL DESIGNS . . CALL or WRITE

Refer Adv. No. 11871

The Buckeye Steel Castings Co.

RPI Members

★ COLUMBUS, O.
★ NEW YORK, N.Y.
★ CHICAGO, ILL.
★ ST. PAUL, MINN.
★ SAN FRANCISCO, CALIF.



C. F. Guggisberg, Soo Line general mechanical superintendent, and Standard Oil's Bob Hawes talk over lubrication in the Soo Line yards at Minneapolis.

When Bob Hawes works with power unit maintenance men in Soo Line Railroad shops everywhere on the road's 4,186 miles of road, he has a job to do. His job is to assist management in finding the best possible lubrication for the line's 212 pieces of motive power, so that the equipment is able to deliver the finest performance at the greatest possible economy. In this way Bob works for the Soo Line Railroad. He is, however, on the staff of the Standard Oil Company's Railway Sales Department.

Bob Hawes has the experience and training that his work demands. He has a degree in engineering from the University of Minnesota and has completed the Standard Oil Sales Engineering School. More than this, Bob has 11 years' experience helping customers by providing them with technical assistance on lubrication problems. His Navy experience with diesel equipment as C.O. of a minesweeper gives him further background for his job.

Other men in Standard's Railway Sales Department with experience and training similar to Bob Hawes's are ready to serve you anywhere in the 15 Midwest or Rocky Mountain states. Your inquiry will receive their immediate attention. Write, wire or call Railway Sales Department, **Standard Oil Company (Indiana), 910 South Michigan Avenue, Chicago 80, Illinois.**

You expect more from **STANDARD** *and you get it!*

New Products Report

Joints Unit-Packaged

All parts for a complete installation of its insulated rail joints are now packaged in a unit carton by Permali, Inc., manufacturer of dielectric laminates. The idea, submitted by a railroad man, simplifies handling of the equipment and reduces inventory problems. The joints, which feature only three insulating parts, are made in all sizes including compromise joints, and are half as heavy as a metal joint. *Permali, Inc., Dept. RA, Mt. Pleasant, Pa.*

Transistorized Carrier Units

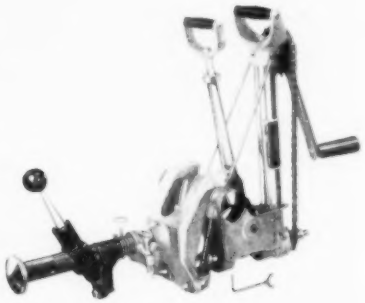
A new line of transistorized carrier units has frequencies in 18 channels from 9 to 31 kc. When transmitting, the transmitter draws 0.1 watt and the receiver 0.3 watt at 10-12 volts. Keying rates up to 35 cps are possible. Each unit is 2 7/16 in. by 5¼ in. by 8 in. and weighs 2½ lb. Transmitter output is a maximum of 6 dbm and receiver input level is from −15 to +6 dbm. *Union Switch and Signal, Div. WABCo., Dept. RA, Swissvale, Pa.*

New Carbonaire Battery

The type Y Edison Carbonaire battery is a non-renewable, air depolarized, add-water carbon battery. It features a 2500 ampere hour capacity with nominal voltage of 1.2 to 1.25 volts. The maximum recommended continuous discharge rates to full capacity are 1 ampere at 75°F and 0.8 amp at 25°F, to an end voltage of not less than 1 volt. *Primary Battery Division, Thomas A. Edison Industries, Dept. RA, Bloomfield, N. J.*

Tag Maker

The Dymo-Mite model M2 is a light weight (26 oz) aluminum alloy hand embossing machine. The embossing dies give sharp raised letters on plastic or metal tape. On the plastic tape the raised letters change color. The tape, which can be obtained with an adhesive backing, is fed from a magazine in the handle. A cut off blade and tape position indicator are built in. *Dymo Corp., Dept. RA, 2546 Tenth Street, Berkeley 10, Calif.*



Hand Bonding Drill

The new Raco No. 650 is a compact, 16-lb unit, 18 in. by 6¾ in. by 24 in. It drills head or web in or out of track. Chisel type rail grips take a firm "bite" under strong cam and lever action, yet allow instant removal. Easily adjusted to width of rail-head and to head or web, or to spot and drill out a terminal. A lever varies the feed. *Railroad Accessories Corporation, Dept. RA, 405 Lexington Avenue, New York 17, N. Y.*

Battery-Water Unit

The Hydrion battery-water unit converts ordinary tap water to pure battery water. By attachment to any water faucet, water of the chemical purity of distilled water is available by simply turning on the faucet. The unit is compact, has no valves or moving parts and requires no heat, skill or attention to operate. The unit uses low cost disposable refills. *A. E. Tomkin and Co., Dept. RA, 1507 M Street, N. W., Washington 5, D. C.*

there are more miles in

Edgewater

rolled steel wheels

because of the uniform physical properties produced by the rolling process

GEARED TO PROGRESS
P R I
MEMBER

E

Edgewater Steel Company
P. O. Box 478, Pittsburgh 30, Pa.

Shippers Ponder RR Problems

► **The Story at a Glance: Featherbedding, taxation, legislation, car supply, loss and damage—and a host of other wide-ranging transportation problems—got a thorough going over by shippers and railroad men attending the 23rd annual meeting of the National Association of Shippers Advisory Boards in New Orleans last week.**

AAR president Daniel P. Loomis said the need is for "action," not "endless study." To that end, he asked shipper support "of all those measures which will establish greater equality of government treatment of the various forms of transportation." And he pledged, in return, "aggressive and positive action to solve those problems within the railroads' own household."

"We cannot allow progress to be blocked by a something-for-nothing philosophy. We cannot abandon faith in the productive principles which have made it possible for the great American economy to give us all so much—and which can give still more. This is the sweeping national economic challenge of the 1960's and all hereafter. It is the key element in the coming showdown battle of competitive coexistence with Russia. The railroads are going to meet this productivity challenge, in not just the fight of our lives, but in a fight *for* our lives."

That was the promise made last Thursday at New Orleans to the National Association of Shippers Advisory Boards by Daniel P. Loomis, president of the Association of American Railroads.

"The effort to set our internal house in order—to wipe out featherbedding work practices which entangle technological progress, may," Mr. Loomis said, "take us into the stormiest weather." But, he continued, "featherbedding is a disaster which puts pressure on prices to all consumers, helps impoverish the railroads, weakens their essential services, undermines their competitive position, and ultimately destroys the very jobs it is designed to protect. An average of 1,000 railroad jobs have disappeared every week over the past 10 years, for a grim total of 500,000. There must be more effective ways of stabilizing and expanding employment than by stubbornly defending practices rendered unnecessary and wasteful by technological change. A healthy and stable industry is the only real guarantee of stable jobs and rising wage benefits."

Acting on that belief, Mr. Loomis promised, railroad management "will leave no stone unturned in its efforts to cut away this parasitic growth . . ."

Featherbedding is not, however, the railroads' only problem. They are still "stuck with stifling regulation which is a grim hangover from bygone days and needs drastic overhaul no less than the old work rules." They are "confronted with taxation that grows steadily more burdensome." They are faced with "mammoth government development programs of highway, air and water facilities" that could produce "competitive pressures in years to come that would make even those of the present seem mild by comparison."

On the other hand, he declared, railroad men are "sick and tired of being the problem child of the American economy . . . of putting up with inequities forced on us by competitors, politicians and labor leaders . . . of eternal declines, of just managing to get by, of chronic anemia."

He sees, however, some encouraging signs that "the American people are ahead of their legislators in seeing the need for overhauling antiquated and unrealistic transport policies. With their help and yours," Mr. Loomis told the shippers, "I can foresee the day when railroads may yet be allowed to give the public the full benefit of their ability to move rising volumes at diminishing rates."

The carriers' legislative needs were further outlined in a talk by AAR Vice President Walter J. Little. Like Mr. Loomis, he urged shipper opposition to labor-supported "make work" bills now pending in Congress which "would more than offset" any gains "which may be made in eliminating featherbedding through direct negotiations." And, also like Mr. Loomis, Mr. Little asked support for legislation "according railroads the same chance others have to provide services by truck, airplane and barge," and providing "more realistic tax treatment of investment funds to stimulate more spending for new plant and equipment."

Mr. Little was supported, in turn, by Curtis D. Buford, AAR vice president — operations and maintenance. Freedom for railroads to operate other forms of transport is essential, Mr. Buford said, "if railroads are to provide the total transportation service shippers want." And tax policy changes covering depreciation of investment in plant and equipment "are necessary to enable the lines to step up their vital modernization and expansion programs," and "to insure an adequate freight car supply for the future."

As at former NASAB meetings, car supply showed up at New Orleans as a subject of continuing vital interest to shippers. As NASAB President Louis A. Schwartz (general manager, New Orleans Traffic and Transportation Bureau), pointed out in his annual report, "the overall ownership of practically all types of cars has continued to decrease . . . It looks as though the shipping public is in for a rough time, at least for Class A box cars and certain types of other equipment."

On the same topic, a report by NASAB's first vice president, W. C. Cole (general traffic manager, Georgia-Pacific Corp., Portland, Ore.), said in part:

"If predictions for what we have ahead of us in the way of business for the next 10 years are anywhere near accurate, then the railroad industry must somehow find the financial means to get its plant in proper condition to do a big job ahead, or they can expect to be snowed under in the rush . . . A car-building program must be set in motion and maintained to produce at least 10,000 new cars a month until the fleet has been built up to adequately serve the nation . . .and reduce the bad order fleet to 3% or less."

In partial answer to Messrs. Schwartz and Cole, R. E. Clark, chairman of the AAR's Car Service Division, said the railroads plan to step up heavy repairs to freight cars as soon as the steel strike is ended. Both he and Mr. Buford pointed out that car supply is being aided to some extent by the continuing growth of piggyback traffic—up 57.3% over 1958 in the first 38 weeks of 1959. And Mr. Clark and Guy Bryant, superintendent of transportation for the Union Pacific, said shippers could aid their own cause on car supply by asking only for necessary cars, handling them promptly, and loading and unloading them carefully.

Perry G. Jefferson, general chairman of the National Freight Loss & Damage Committee (general traffic manager, Fairbanks, Morse & Co.), struck a cheerful note with his report that ratio of loss and damage to freight revenue in the first six months of 1959 was 1.27, compared with 1.46 in the corresponding part of 1958.

Indications of renewed determination to revive interest in shipper board affairs, and participation in board activities, came from creation of a new special committee at a meeting called by L. E. Olson, NASAB secretary and assistant director of traffic, Great Lakes Carbon Corp.

Setting new standards of efficiency and reliability over PGE's entire 800 mile mountainous route...

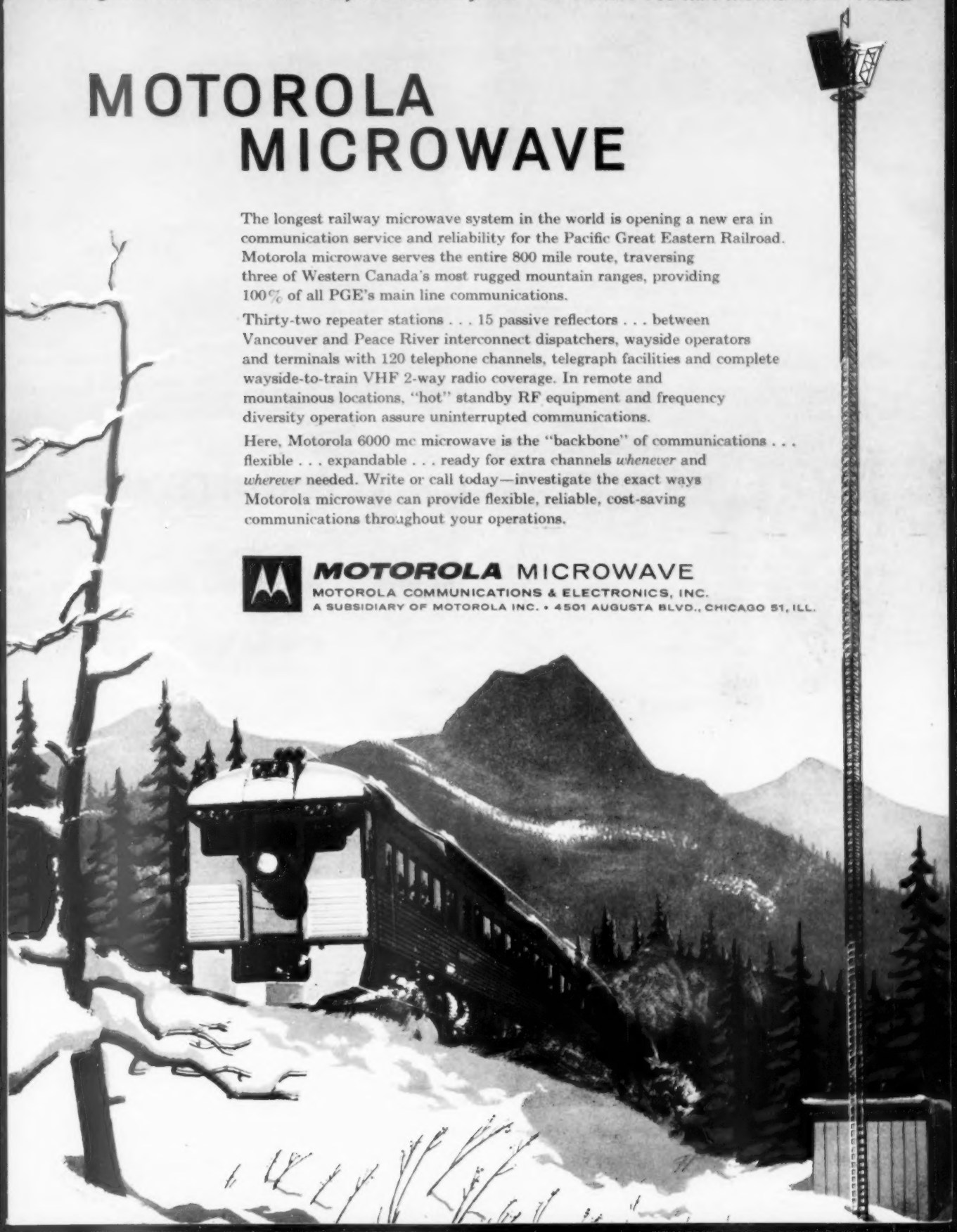
MOTOROLA MICROWAVE

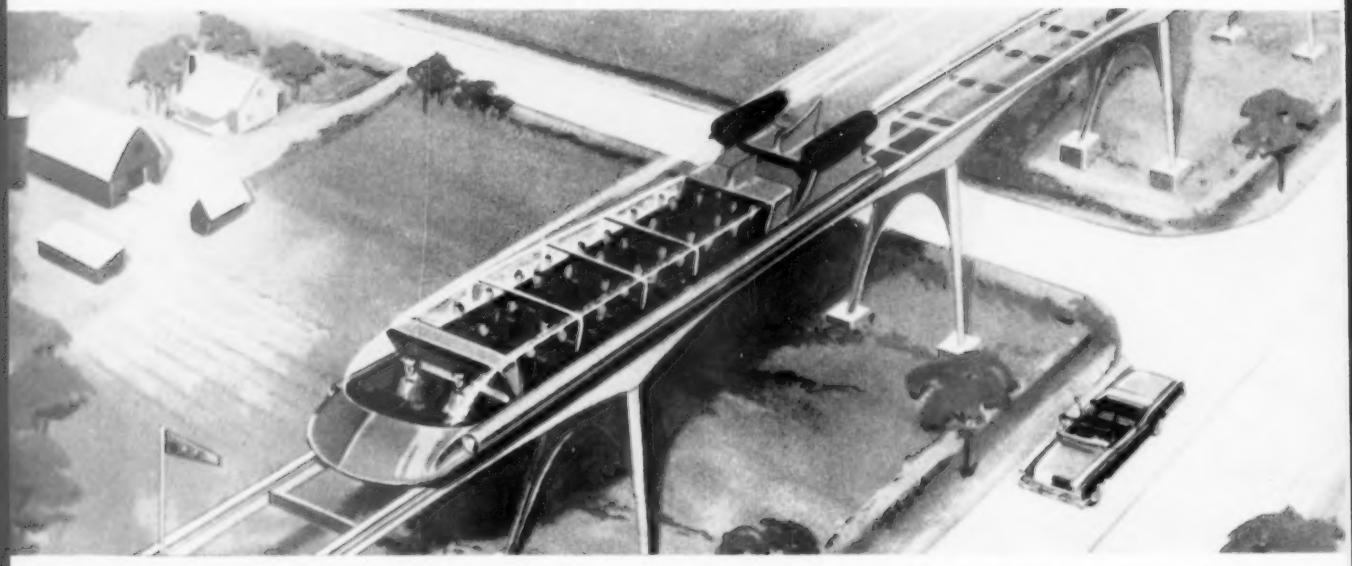
The longest railway microwave system in the world is opening a new era in communication service and reliability for the Pacific Great Eastern Railroad. Motorola microwave serves the entire 800 mile route, traversing three of Western Canada's most rugged mountain ranges, providing 100% of all PGE's main line communications.

Thirty-two repeater stations . . . 15 passive reflectors . . . between Vancouver and Peace River interconnect dispatchers, wayside operators and terminals with 120 telephone channels, telegraph facilities and complete wayside-to-train VHF 2-way radio coverage. In remote and mountainous locations, "hot" standby RF equipment and frequency diversity operation assure uninterrupted communications.

Here, Motorola 6000 mc microwave is the "backbone" of communications . . . flexible . . . expandable . . . ready for extra channels *whenever* and *wherever* needed. Write or call today—investigate the exact ways Motorola microwave can provide flexible, reliable, cost-saving communications throughout your operations.

MOTOROLA MICROWAVE
MOTOROLA COMMUNICATIONS & ELECTRONICS, INC.
A SUBSIDIARY OF MOTOROLA INC. • 4501 AUGUSTA BLVD., CHICAGO 51, ILL.





LEVACARS—guided by rails; supported and propelled by air—might be used, as shown in this artist's conception, for passenger transportation at speeds of 200 to 500 mph. Individual units, operating at frequent intervals, for non-stop distances of 100 to 1,000 miles, could be economically attractive, plane-competitive, say Ford Motor Co. engineers.

Will Levacar Speed Rail Travel?

► **The Story at a Glance: Rail-guided ground travel at air-borne speeds—already technically possible—may become a practical reality within the foreseeable future.**

The means could be the Ford Motor Company's Levacar. That's one of many wheelless, air-supported, air-propelled vehicles now under development, and the only one specifically designed for public transportation on rails.

Levacar, Ford engineers believe, could make railroads fully competitive with planes for distances up to at least 1,000 miles, where station stops are approximately 100 miles apart.

The principle of "levitation" for future ground transportation, possibly on or along rails, at speeds of from 200 to 500 mph, has been successfully demonstrated by the Ford Motor Company.

It could, Ford scientists say, lead to a wholly new concept of rail travel, under which individual vehicles would operate between major cities on close headways in airplane-competitive time. A practical working model of such a vehicle is already on display at the Ford Rotunda (exhibition hall) in Dearborn, Mich.

The Levacar is supported, and its forward motion "lubricated," by tiny jets of air pushed through "levapads" on the bottom of the car. It is propelled by air ejected, at surprisingly low pressures, from the rear of the car. It travels from three to five-thousandths of an inch off the ground. Thus, rails, or some equally smooth surface, are necessary for successful operation. Even the best of concrete highways would be too rough.

For railroad passenger service, Ford engineers visualize relatively small Levacars, holding perhaps 20 passengers each—though considerably larger vehicles (as shown in the accompanying artist's sketch) are technically possible. Each car would operate as a separate unit under completely automatic control; "human reaction times could not cope with the speeds involved." But the cars could operate as often as traffic volume required — under very short headway.

Differences in speed and signaling requirements would admittedly preclude use of Levacars on the same tracks with conventional trains, but they could run on special tracks built on or over existing railroad rights of way. On a four-track line, for example, the two inside tracks might be converted for Levacar operation; the two outside tracks kept in conventional pattern for freight and short-distance passenger service where Levacar speeds would have no appreciable advantage. On a single or double-track line, Levacar rails might be built above the standard track on the same right of way.

On that general basis, Ford believes, Levacar could make railroads fully competitive with airplanes, at least up to 1,000 miles, for these reasons:

- *Speeds would be comparable.* By Levacar, at a relatively modest 300 mph, New York would be only 45 minutes from Washington or Boston; Chicago only an hour from Detroit or St. Louis.
- *Convenience would be greater.* Levacars could use existing railroad terminals. City-to-city travel times would be downtown-to-downtown; not airport-to-airport.
- *There would be added safety.* There'd be no take-offs; no landings. Mechanical failure would simply bring the car to a sliding stop along its guiding rails after a fractional-inch fall.
- *Power requirements would be less.* David J. Jay, senior development engineer of Ford's Levacar project, points out that a four-engine DC6B passenger plane, with take-off weight of 100,000 lb, needs 9,600 hp. By contrast, he says, a 100,000-lb Levacar needs only 4,300 hp—2,500 for levitation at 50 hp per ton, and 1,800 for propulsion at 400 mph.
- *Payload would be greater,* in proportion to power requirements and total weight. Levacar has no wings, empennage or control surfaces to build up either weight or drag.

On the other hand, Ford isn't think-

ing of Levacar as a potential rival to the family auto, because very few people have any great need for private ownership of a vehicle primarily designed for high-speed trips of 100 miles or more—or the ability to control such a vehicle.

Under present thinking, commercial Levacars would be powered by gas turbines or turbojet engines; could use almost any kind of fuel. They could be stopped by any of several methods—reverse engine thrust, water scoops, mechanical or magnetic brakes. Electrical push buttons would provide whatever manual control might be needed.

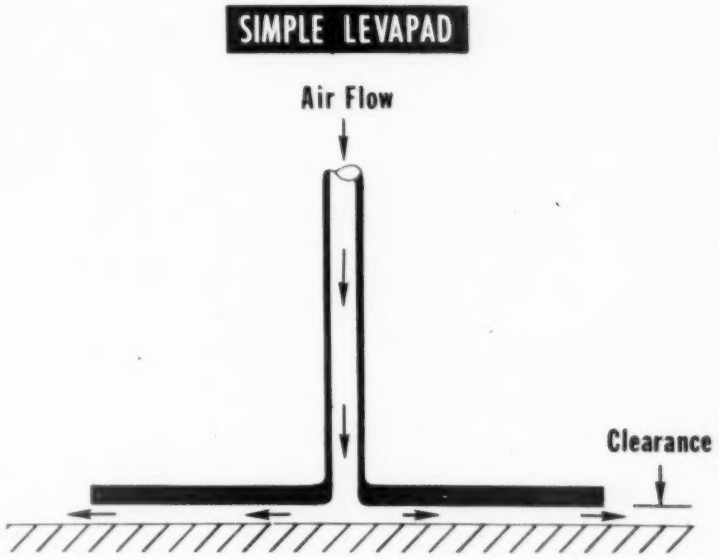
With properly designed levapads, the car could be guided by a single rail, on the monorail principle, or, for greater stability, on double rails. The ideal rail section has not yet been worked out, but would probably be considerably lighter than present railroad standards. And, says Mr. Jay, "it would last just about forever," because it would be only a guide; not a weight-carrying support. There would be no friction or wear between car and rails. (Neither would there be any wheel, axle or bearing friction or maintenance.)

Grades and curves would be no problem, because Levacar can take any grade up to 50% with only slight diminution in speed; negotiate at high speed any properly banked curve, down to 1,500-ft radius (about 3 deg, 50 min). Switching would be no obstacle, either, because Levacar can cross short gaps in its guide rails without difficulty. "We couldn't," Mr. Jay concedes, "operate over grade crossings, but our anticipated track structure is so light that it could be jumped over such crossings without too much cost or trouble."

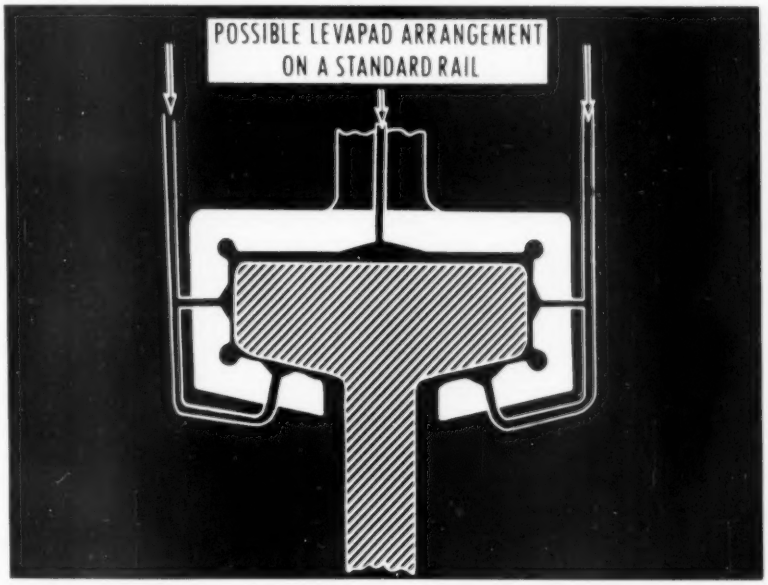
Levacar is the brainchild of Dr. Andrew A. Kucher, Ford's vice president for engineering and research, who first proposed the air-levitated concept of high-speed ground transportation in 1928. Wheels, Dr. Kucher says, will probably always have their place in short-distance, relatively low-speed transportation of the type performed by today's conventional cars, trucks and trains. But wheels reach their practical maximum speed at 200 mph, or less. Even at that velocity, wheeled vehicles encounter difficult problems of vibration, loss of traction and loss of control. Hence, he says, a wheelless vehicle is mandatory if ground transport is ever to approach air speeds.

The Levacar is only one of a score or more of air-supported vehicles under development in this country and abroad for travel over either land or water. Curtiss-Wright Corp., for example, is working on a 60-mph "Air Car," roughly comparable to an automobile. In England, a Saunders-Roe "Hovercraft" recently made a two-hour crossing of the English Channel from Calais to Dover. These, however, are designed to travel without ground guidance, and higher off the ground than Levacar.

That is the only known vehicle of its type specifically planned for rail-guided, commercial transport. And Ford has enough confidence in its possibilities to have set up an entire project group to work on its further development. The group's next assignment may be to build a six-to-eight passenger vehicle to operate on rails at about 200 mph.



LEVAPADS, which support the Levacar, are technically attractive because of their simplicity. In their most elementary form, they are simply flat, round plates with a hole in the middle. Through a tube inserted in this hole, air is pumped between the plate and the ground to keep them separated and exert sufficient pressure to lift the vehicle a few thousandths of an inch.

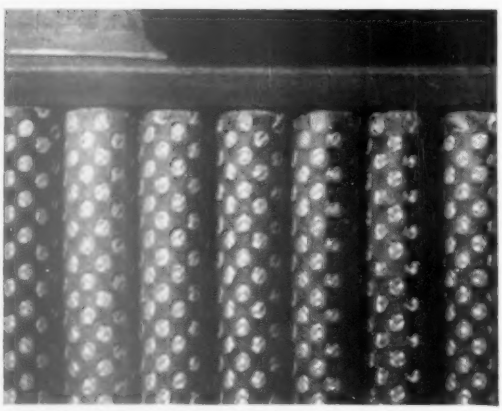


TO SUPPORT A FULL-SIZE VEHICLE, a number of levapads could be combined to serve several requirements. This sketch illustrates a possible configuration that might be used around a standard rail. The pad at the top would support the load; those at the sides would prevent lateral motion; and those at the bottom would keep the car from leaving the rail.

New Exide-Ironclad Carlighting Battery

SAVE UP TO 616 LB. PER CAR

-- or boost power 25%



Here's the secret. The new, improved tubular positive plate. Active material is held securely in fine mesh, braided glass tubing encased in plastic armor. Boosts battery performance . . . extends life. Exide introduced the tubular positive plate battery 50 years ago. Has constantly improved it ever since. No other battery design has ever been able to match it for heavy duty service.

Out of Exide research now comes the biggest advance in carlighting battery design ever made. Exide engineers found the way to use battery materials even more efficiently. Now you can get the same battery capacity at a weight saving of up to 616 lb., or you can boost capacity within the same size battery compartment as much as 25%.

Either way, you achieve significant cost savings too. Because this new, more efficient, Exide-Ironclad can be priced approximately 8% lower per amp-hr. And its new construction means longer life potential . . . extra years of battery use for every dollar invested.

Write for complete information. Also ask about the new, portable chargers for station use. Exide Industrial Division, The Electric Storage Battery Company, Phila. 20, Pa.

Exide®

THE ELECTRIC STORAGE BATTERY COMPANY

PROVEN BY MILLIONS OF MILES...KEEPS ENGINES CLEANER!

A routine engine check between oil change intervals will give you an indication of the superior performance of Diol RD. Oil screens are clean. Oil coolers are free from sludge and contamination that restrict flow. Diol RD stands up to heat and oxidation.

Millions of miles of day-to-day service have proved Diol RD gives longer life to rings, pistons, bearings and other moving parts. Diol RD contains special detergent additives that reduce carbon and varnish accumulations that cause ring breakage and premature wear. Anti-wear additives, designed for high-output service, protect heavily loaded parts against friction and scoring. And because Diol RD additives remain effective after long periods of service, normal oil make-up is sufficient to maintain its outstanding lubrication action.

Technical assistance is readily available through your Esso representative. For more information, write: Railroad Sales Division, Esso Standard Oil Co., 15 West 51st Street, New York 19, N. Y.

Esso

RAILROAD PRODUCTS

In industry after industry..."ESSO RESEARCH works wonders with oil"

The most outstanding standard pocket draft gear ever offered American Railroads

Combining friction and rubber, this Waugh-Gould Type 700 Friction-Rubber Draft Gear has the smooth action of the Waugh-Gould Type 420 Friction Gear plus extremely high capacity provided by the series of rubber mats. This is, in fact, the highest capacity draft gear for standard pockets ever approved by the A.A.R. With its 51,600 ft. lbs. official capacity*, the Waugh-Gould Type 700 Friction Rubber Gear affords more than twice the car and lading protection of any all-friction draft gear. Specify Waugh-Gould Type 700 Friction Rubber Gear on your next draft gear order.

*Certified under A.A.R. Specification M-901-53, Waugh-Gould Type 700 Draft Gear has an official average capacity of 51,600 ft. lbs. at 2.62" average gear closure with average reaction of 1,006,200 lbs. Half travel capacity, 10,640 ft. lbs. or 20.6% of capacity at full travel.

WAUGH-GOULD

TYPE 700 FRICTION RUBBER DRAFT GEAR

WAUGH EQUIPMENT COMPANY

New York • Chicago • St. Louis • Canadian Waugh Equipment Company, Montreal

MARKET OUTLOOK *at a glance*

Carloadings Drop 2.5% Below Previous Week's

Loadings of revenue freight in the week ended Oct. 3 totaled 572,502 cars, the Association of American Railroads announced on Oct. 8. This was a decrease of 14,577 cars, or 2.5%, compared with the previous week; a decrease of 105,123 cars, or 15.5%, compared with the corresponding week last year; and a decrease of 175,145 cars, or 23.4%, compared with the equivalent 1957 week.

Loadings of revenue freight for the week ended Sept. 26 totaled 587,079 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, Sept. 26

District	1959	1958	1957
Eastern	89,714	96,063	111,199
Allegheny	86,944	117,286	144,647
Pocahontas	49,864	57,778	64,133
Southern	121,308	120,255	122,679
Northwestern	67,078	104,951	119,649
Central Western	117,812	128,377	125,616
Southwestern	54,359	48,670	51,343
Total Western Districts	239,249	281,998	296,608
Total All Roads	587,079	673,380	739,266
Commodities:			
Grain and grain products	54,258	57,067	50,043
Livestock	9,653	10,071	9,315
Coal	107,557	125,021	141,973
Coke	3,069	7,065	10,096
Forest Products	43,831	40,309	37,820
Ore	8,481	57,407	81,032
Merchandise l.c.l.	43,254	50,251	57,002
Miscellaneous	316,976	326,189	351,985
Sept. 26	587,079	673,380	739,266
Sept. 19	578,240	667,760	724,934
Sept. 12	480,647	666,223	741,147
Sept. 5	544,089	563,725	646,117
Aug. 29	548,820	646,226	745,620
Cumulative total, 39 weeks	23,304,811	22,166,077	27,136,238

PIGGYBACK CARLOADINGS.—U. S. piggyback loadings for the week ended Sept. 26 totaled 9,116 cars, compared with 6,578 for the corresponding 1958 week. Loadings for 1959 up to Sept. 26 totaled 305,119 cars, compared with 194,808 for the corresponding period of 1958.

IN CANADA—Carloadings for the seven-day period ended Sept. 21 totaled 87,142 cars, compared with 84,907 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
Sept. 21, 1959	87,142	26,999
Sept. 21, 1958	78,179	26,681
Cumulative Totals:		
Sept. 21, 1959	2,764,430	1,014,761
Sept. 21, 1958	2,705,448	1,021,977

New Equipment

FREIGHT-TRAIN CARS

► *Great Northern.*—Ordered equipment for piggyback transport of new automobiles between California and Pacific Northwest points. Order includes 25 85-ft flat cars from General American; and 50 highway trailers from Durobilt Manufacturing Company. Each trailer will have capacity of five automobiles. Total cost of the orders: approximately $750,000.

► *Santa Fe.*—Ordered 200 85-ft G-85 piggyback flat cars from General American; and 155 70-ton, 3,219-cu ft capacity covered hopper cars from Pullman-Standard. Total cost: more than $4,500,000. All cars will be equipped with roller bearings; covered hopper cars will have plastic linings. Piggyback flat cars will be delivered during first quarter 1960; covered hoppers will be delivered immediately.

LOCOMOTIVES

► *Union Pacific.*—Purchased from General Electric one four-unit 8,000-hp diesel-electric locomotive for delivery late this month. UP will use it in freight service. Locomotive has been in test service on the Erie for the past several years.

SPECIAL

► *Boeing Airplane Co.*—Will award subcontracts in November for special railway equipment to be used in mobile missile-launcher systems planned by the Air Force. Bids have already been received. (RA, July 6, p. 36; Sept. 14, p. 24.)

► *Reading.*—The road's highway subsidiary, Reading Transportation Co., is acquiring 50 35-ft trailers at a cost of $300,000 for use in both TOFC and general trucking service. Delivery is now under way. A spokesman said the order (which augments an earlier order for 50 trailers) "reflects an increasing demand by shippers and receivers for total transportation services, including both truck and rail facilities."

► *Repair Ratio 0.1% Higher Than Last Year.*—Class I roads on Sept. 1, owned 1,701,777 freight cars, 39,239 less than a year ago, according to AAR report summarized below. Repair ratio was 0.1% higher than on Sept. 1, 1958.

	Sept. 1, 1959	Sept. 1, 1958	Change
Car ownership	1,701,777	1,741,016	—39,239
Waiting repairs	142,779	143,943	— 1,164
Repair ratio	8.4%	8.3%	+ 0.1%

New Facilities

► *Rio Grande.*—Major projects under way and scheduled for 1959 completion include installation of CTC, Dotsero to Bond, Colo., and Dotsero to Avon, Colo., $472,560; construction of paint building and installation of spray facilities for painting freight cars at Burnham Yard, Denver, $105,100; and construction of piggyback facilities at Roper Yard, Salt Lake City, $70,420.

a RAILWAY AGE time-saver page

Railroads Sharpen Cost-Price

► **The Story at a Glance: Railroad costing and rate-making techniques are being honed to a fine edge—and here may lie the industry's sharpest weapon in its fight for a bigger slice of the American transportation market. Traffic experts refuse to be pessimistic. They've seen what cost-price research can do. They're impressed.**

Research men, the chairmen of the Eastern and Western Traffic Associations and a Columbia University economics professor gave their views on what the situation is—and should be—at last week's fall meeting of the Railway Systems and Procedures Association in Chicago. The consensus: the tools for systematic costing and pricing are available; all that's needed is the broad and unyielding decision to make optimum use of these tools.

Railroad costing may be, as NYC transportation analyst J. W. Ingram describes it, "an inexact science in the process of development" but that development, over the past few years, is a movement which has captured the enthusiasm of both the veterans and the comparative youngsters in the traffic and market research fields. RSPA members last week heard a rundown on:

- Individual carrier approaches to the cost-price problem.
- Prospects for traffic prosperity through research.
- Recommendations—from outside the industry—on how cost-price research can be applied to produce maximum results.

Costing got the emphasis. Although methods differ between territories and within territories, the objective is the same: development of data to serve as a basis for intelligent, effective rate-making. Incremental cost techniques, in particular, got a thorough going over—because, as C&O's W. B. Wright noted, use of incremental costs "opens the door to break-even analysis. Any proposed rate change can then be evaluated in terms of present contribution from any segment of traffic as against expected contribution from that segment of traffic after the rate adjustment."

Mr. Wright, executive consultant, revenue research, for C&O, conceded that "costs constantly change." But, he said, "we do know that these incremental costs, properly maintained and constantly refined, can provide us with a floor below which traffic men cannot let rates fall—and as such, they're a valuable guidepost."

The manager of SP's Bureau of Transportation Research, F. Wascoe, put equal stress on the cost angle. "With expanded and more adequate cost information on our own costs and on those of our competitors, with the addition of demand data provided by market research," he said, "differential pricing can be welded into the crucial weapon in our fight for survival in the competitive transportation economy."

(SP, Mr. Wascoe noted, expects to program its present cost-finding system on an IBM 7070 computer. Each traffic movement will be costed out and costs will be compared to revenue accruing from the movement. Result: SP will have a vast store of net revenue information available. Proper design of output summaries will give management more and better data on which to base decisions concerning solicitation efforts, need for rate adjustments, economic priority of equipment acquisitions.)

Auto TOFC: 'Sure Winner'

The high hopes held for transportation of new automobiles by piggyback are more than just hopes now for Frisco. With movement of several thousand new cars already on the books, auto TOFC looks like a sure winner.

The rates—about 20% under all-highway movement rates and slightly less than all-rail rates—return 112% to 123% on fully distributed costs.

"Every car moved has been new business," according to J. E. Gilliland, vice president traffic—industrial development.

Joint rail-truck service picks up about 20 hours on over-the-road service on 660- to 800-mile runs.

Frisco is moving automobiles from St. Louis and Kansas City to four interchange points (Dallas and Floydada, Tex., Tulsa, Okla., and Birmingham, Ala.) where auto transport companies take over to complete delivery to dealers. Rates are in effect with six truckers. (Frisco has gone into the business with both Plan III and Plan V rates. Most of the traffic now moves on Plan V joint rates, and the same set-up is likely to prevail in most future moves.)

Severest critic of old-line railroad rate-making was Dr. Joel Dean, professor of business economics at Columbia University. Dr. Dean cited faulty pricing as a major factor in loss of traffic to the motor carriers and noted four areas where the existing rail rate structure plays into the truckers' hands:

- Unrealistically high rates which move no traffic.
- Higher rates for high-value commodities than for low-value commodities.
- Inadequate incentive for heavy loading.
- Excessive discounts for long hauls.

In particular, he attacked the high-value vs low-value theory, on grounds that "if the value of the commodity should be recognized in the rate structure at all, exactly the opposite treatment would be most effective in competing against trucks, since trucks usually offer faster service . . . and the value of fast service is directly proportional to the value of the shipment."

Dr. Dean contended that the industry "can no longer afford the expensive luxury of a rate structure which is so complex that it takes years of training to learn how to quote a price—and which does not consistently accomplish what a competitive rate structure ought to accomplish."

Still, he added, systematic pricing is no dream. It's here as evidenced by the carriers' approach in the recent paint-rate case. In that instance, he said, the railroads adopted—and the ICC approved—five important principles of competitive rate-making:

- A rate structure designed for the specific purpose of maximizing contribution profits over incremental cost.
- A structure which carefully undercuts efficient trucking costs at all mileages and weights for which the railroads have a comparative economic advantage.
- Shipper incentives which provide a continuously declining charge per hundredweight with each additional hundredweight loaded in a car.
- Abandonment of historical rate relationships as criteria, when these conflicted with the objective of maximizing contribution profit.
- A systematic, profit-oriented economic research approach to the pricing problem.

"In interpreting the Transportation Act of 1958," Dr. Dean concluded, "it seems likely the ICC will regard such an approach to pricing as one important element in ensuring rates that con-

form with the objectives of the statute . . . if the railroads concentrate on establishing rates for good business reasons, the regulatory problem will probably take care of itself."

E. V. Hill, chairman of the Traffic Executive Association, Eastern Railroads; and T. H. Maguire, chairman and counsel of the executive committee, Western Traffic Association, indicated that the carriers intend to follow just that course. Mr. Hill sees the freight traffic market as "almost unlimited . . . or, if it is to be limited, the limitation will come because of car supply and service, not because of pricing." Analysis of a year's traffic, he said, shows that eastern lines participated in movements of about 1,000 different articles, in lots of 1,000 cars or more. But the uniform classification lists some 9,000 articles which move in commerce. If it's assumed that 2,000 or 3,000 additional articles moved in lots of 100 to 1,000 cars, 5,000 to 6,000 articles are still unaccounted for. Research will hunt them out and "where we find that freight rates may be an important or a controlling factor, we intend to do something about them."

Increased Revenue

Even if research can treat only 1% or 2% of these unknowns "as successfully as we believe we have treated the paint traffic," Mr. Hill concluded, "we would increase our annual revenues somewhere between $50,000,000 and $60,000,000."

Mr. Maguire outlined the western approach, with emphasis on degree of refinement to which researchers have developed competitive motor carrier costs, collectively, individually and in combinations. He emphasized that the principal competitive target is the do-it-yourself truck operator: "If we can get even a half of the private carriage business back, we wouldn't have to worry—and neither would the motor carriers."

James G. Lyne, editor of Railway Age, exhibited six charts, designed to demonstrate railroad advantages and handicaps in competing with other forms of transport—and the areas of opportunity where cost and price research can pay dividends in movement of profitable traffic. (Excerpts from Mr. Lyne's address, "Economic Considerations in Railroad Rate-Making," will appear in the Oct. 19 Railway Age.)

TOFC and Net Income

Piggyback may represent a transport revolution and a blessing to the railroads—but it's a blessing that deserves the most careful scrutiny, the most painstaking research. Two railroad presidents—Northern Pacific's Robert S. Macfarlane and Western Maryland's W. Arthur Grotz—outlined the problems before RSPA last week and came to that general conclusion.

The discussion also introduced a new element into the piggyback-study situation—via a proposal by Mr. Grotz that the AAR enlarge its research organization by the addition of an economic research division.

Mr. Macfarlane hailed the potential in TOFC service—but he cautioned against letting "enthusiasm for this new tool blind us to a danger in it. Great care must be taken to maintain our carload business while at the same time efforts are being put forth to recapture tonnage which has been lost . . . This is most essential because while, generally speaking, piggyback rates are higher than conventional rail rates, costs are also higher and any unnecessary diversion of business in any volume from rail cars to piggyback will reduce net income."

Mr. Grotz noted that piggyback "appears to be as far-reaching a revolution in railroad transportation as the dieselizing of motive power. It will undoubtedly involve huge investments and great opportunities."

But, he warned, "it is entirely possible to have a great increase in piggybacking without a beneficial effect upon railroad net income unless a wise course for both rates and services is set in its formative years."

Mr. Grotz posed a dozen basic questions which, he said, must be answered as concretely as possible before a projection of piggyback's impact can be made.

Basically, his queries cover a wide range of operations, from estimates of piggyback ton-miles in future periods; to possible diversion of business from conventional equipment to TOFC; and optimum rate structures for each piggyback "plan" (optimum from a standpoint of net earnings, not gross revenues).

Answering all the vital questions, Mr. Grotz noted, "will require painstaking research, analysis and discussion, which will cost money. But the stakes in this game are so high that they must be thoroughly answered regardless of cost . . .

"When the answers for individual railroads are made, they should be integrated in a comprehensive and easily understood form. This form is the regular income account, starting with revenues and going down item by item through expenses, taxes and fixed charges, to arrive at projected net income. The goal of top management is the net income of the enterprise as a whole and not out-of-pocket costs or so-called fully allocated costs of some arbitrary fractions of its business."

Piggyback, WM's president added, "deserves the closest attention, not only of the traffic and transportation departments, but also of the maintenance, accounting, budgeting and financial officers.

"The challenges of tomorrow are so vast and apply so generally to our industry that I recommend that the Association of American Railroads add to its research functions a top-flight economic research division skilled in marketing and costs and imaginative and flexible enough to help all of us."

SYMES BACKS MERGER

(Continued from page 9)

mission overruled Examiner H. J. Blond and ordered the applicants to produce the underlying data actually used by Mr. Wyer in his studies indicating carloads and revenue which Lackawanna connections would lose annually to the merged system.

As Mr. Wyer sees it, those losses would be suffered by 14 roads and they would amount to $6,949,000 a year in gross revenue. Biggest loser would be the Nickel Plate with a loss of $3,528,000. Wabash would be next with an annual loss of $893,000. LV's loss, at $1,000, would be the smallest. Meanwhile, the Wyer studies also show that there would be offsetting gains to some of the 14 roads because the merged system would lose business mounting to $5,717,000 a year in gross. Biggest gainer would be LV, to which Mr. Wyer assigns $4,756,798 of the gross which the merged system would lose.

J. Morley Frank
CNR-GT

R. H. Ligon
N&W

George J. Handzik
Santa Fe

Kenneth G. Carlson
UP

Chester E. Grigsby
ASF

Gordon R. Anderson
Fairbanks, Morse

People in the News

CANADIAN NATIONAL - GRAND TRUNK. — **J. Morley Frank**, assistant freight traffic manager, rates, Chicago, appointed freight traffic manager, rates, succeeding **Ross A. Norris**, who retired Sept. 30. **Arthur J. Medrow**, general freight agent, rates, named to replace Mr. Frank.

CHICAGO & NORTH WESTERN. — **Charles F. Stewart**, assistant to the general passenger traffic manager, appointed general passenger traffic manager, Chicago, succeeding **J. R. Brennan**, promoted to the newly created position of executive assistant. **Robert R. Tate**, division freight and passenger agent, Racine, Wis., named general freight and passenger agent, Milwaukee, to replace **D. G. Payne**, appointed assistant traffic manager, Chicago. Mr. Tate's successor is **Preston P. Austin**, general agent, Billings, Mont.

ELGIN, JOLIET & EASTERN.—**John L. Manthey** appointed assistant auditor of capital expenditures, Joliet, Ill. **Lester J. Mitchell** named general accountant, Chicago.

NORFOLK & WESTERN.—Changes in the rates and divisions section: **R. H. Ligon**, assistant freight traffic manager, promoted to freight traffic manager, succeeding **C. H. Pernter** (RA, Sept. 7, p. 45); **J. R. McMichael**, assistant general freight agent, named assistant freight traffic manager; **R. B. Pleasants**, assistant general freight agent, succeeds Mr. McMichael, with same title; **L. P. Murray**, chief clerk, named assistant general freight agent.

NORTHERN PACIFIC.—**G. E. Thorne**, commercial agent, Milwaukee, appointed general agent there, replacing **J. M. Zakariasen**, who retired Oct. 1.

A. R. Genin, general foreman, Livingston, Mont., Shop, promoted to shop superintendent there, succeeding **A. I. Anderson**, who retired Oct. 1.

SANTA FE.—**George J. Handzik**, acting manager of public relations, Chicago, named manager of public relations there.

SOUTHERN PACIFIC.—**D. P. Boykin** named assistant superintendent, Los Angeles division, Los Angeles, to replace **A. D. DeMoss**, attending Stanford University under the company's educational program. **J. J. Willis** appointed assistant superintendent, San Joaquin division, Bakersfield, Cal., succeeding **W. C. Morris**, transferred.

UNION PACIFIC.—**Kenneth G. Carlson**, freight traffic manager—rates and divisions, named general freight traffic manager, Omaha, Neb.

Clyde E. Duff, assistant manager of the mail, baggage and express traffic department, Omaha, Neb., appointed manager of that department, to replace **Frank W. Hickson**, retired. **W. D. Loomis**, general baggage and express agent, named to succeed Mr. Duff.

Supply Trade

Stanley G. Bair, director and vice president of **National Waste Company**, resigned, effective Aug. 19.

Chester E. Grigsby, vice president and director of **American Steel Foundries** and general manager of the Transportation Equipment Division, has been named head of the division, succeeding **Charles L. Heater**, retired.

Gordon R. Anderson has been named vice president and general manager of the Beloit (Wis.) Division of **Fairbanks, Morse Co.** Mr. Anderson will have responsibility for the production and sales of diesel engines, locomotives, compressors, magnetos and rewind starters. He was formerly vice president-engineering at Chicago.

Lambert J. Tillman, board chairman, Unitcast Corp. and the **Wine Railway Appliance Co.**, who retired from active service July 1, has been re-elected board chairman. **Cyrus Hankins**, vice chairman, will retire Nov. 1.

Joseph J. Stedem retired Oct. 1 as executive vice president of the **Hertz Corp.** He will remain with the corporation on a consultant basis.

Thomas A. Micali, general counsel, **Pullman Incorporated**, has been elected a vice president and general counsel.

OBITUARY

Charles Lewis Stevens, regional auditor, Atlantic region, **Canadian National**, died Sept. 29 at his home in Moncton, N.B.

E. B. Fields, mechanical assistant, **Santa Fe**, Chicago, died Oct. 2 in the Hinsdale Sanatarium, Hinsdale, Ill.

J. W. Eaton, Western district sales supervisor, **Sperry Rail Service**, died Sept. 18 at Chicago.

Volney B. Fowler, 62, director of public relations, **Electro-Motive Division** of **General Motors Corp.**, La Grange, Ill., died Oct. 6 in Presbyterian-St. Luke's Hospital, Chicago. Mr. Fowler entered GM service in 1929 and was named director of public relations for EMD in 1944.

NEW ROADS GET SLUMBERCOACHES *(Continued from page 10)*

Commissioner Tuggle commented that the decline in passenger-miles was continuing in 1959. On the bright side, he pointed out that "contrary to some expectations, the rail carriers succeeded in reducing their passenger deficit from $723.5 million in 1957 to $610.4 million in 1958, the lowest figure since 1950. If this achievement can be repeated in 1959 and in future years, certainly there is ground for hope . . .

"The outlook for railroad passenger business is not entirely black, nor is it correct to believe that railroads generally are ready to give up the passenger business as a lost cause," Commissioner Tuggle went on. "Fight for your traffic," the commissioner concluded, "and the railroads will operate passenger service for a long time."

Maj. Gen. I. Sewell Morris, executive director of the Military Traffic Management Agency, told the AAPTO that passenger traffic was at the "crossroads of decision," and that he wanted to develop the theme that there is a future for the railroad passenger business by giving what he frankly called a "pep-talk." Noting the vigor and vitality of the AAPTO, General Morris said "the time has come to throw away the pills, crutches and crying towels." Railroading has surmounted equally difficult obstacles in the past, the general said, and other industries are overcoming similar difficulties of shrinking demand in the present. Commenting that no "really worthwhile product in the market is more undersold than railway transportation," General Morris called on the AAPTO members to go "all out" after potential customers and convince them that there is no better way to travel than by train.

HAYES

Hayes Track has manufactured for over fifty years in its own plant with research a major activity. The newest transportation aid is a cushion wheel stop without bolts Type SFA. It is easy to install, maintain and switch against.

Hayes Track Appliance Co., Richmond, Indiana

BOOK SALE!!

SIMMONS-BOARDMAN

Buys Out Railroad Book Stock Of The British Book Centre

Here's your opportunity to own these fine books—*imported from England*—at a fraction of their published price. Expand your railroad and hobby interests with these exciting books about British railroading.

QUANTITIES LIMITED
ORDERS FILLED IN ORDER RECEIVED

SEND NO MONEY—Rush the coupon with your selections checked and we'll ship books as long as they last, but quantities are small so hurry your order. We'll bill you the price shown plus actual postage.

1 BRITISH TRAINS PAST AND PRESENT by O. S. Nock. An account of the engines and rolling stock which they have been pulling during the past 125 years. Many illustrations, some in full color. An interesting story of the history of British railroad trains. 118 pp. Hard bound. Many illus. Published at $4.00. *Our price $1.59.*

2 THE MODEL RAILWAY ENCYCLOPEDIA by Ernest F. Carter. A practical handbook for the model railroader by a top British author in this field. 23 comprehensive chapters covering the hobby from detailed instructions for locomotive and rolling stock construction to permanent way engineering. 466 pp. 461 diagrams. 128 photographs. *Blueprints of 20 British locomotives.* Third edition, 1956. Published at $6.50. *Our price, while they last $2.19.*

3 THE RAILWAY ENGINEERS by O. S. Nock. The author tells of locomotives and British locomotive men and of their actual experiences in running the trains. You will read about the Stephensons and their monumental contribution to railroading. 60 contemporary illus. Cloth bound, and beautifully jacketed. 256 pp. Published at $4.50. 1955 edition. *Our price, $1.79.*

4 THE MODEL RAILWAY HOBBY by M. H. Binstead. An introduction to model railroading in Great Britain. 28 chapters ranging from gauge and scale to scenery and decoration. 268 pp. Many drawings. Hard bound. Published at $2.75. *Our price, 69¢.*

5 RAILWAY MODELLING IN MINIATURE by Edward Beal. This is the 1958 fourth revised edition with special emphasis on gauge "00" modelling. The author deals not only with the building of a model line but also instructs the reader in the importance of scenic background. 275 illus. 129 pp. Hard bound. Published at $2.25. *Our price, 79¢*

6 BRANCH LINES O. S. Nock. A beautifully produced book with many half-tone illustrations. Treats of the branch lines in British railroading. There is much of engineering interest in the author's account, more than 40 photographs, 14 specially-drawn plans of the lines, and a selection of old prints. First published 1957. 184 pp. Cloth bound. Originally $6. *Our price, $1.79.*

Most books jacketed. Some jackets show shelf wear, but books are new.

Simmons-Boardman Books, 30 Church Street, New York 7

Gentlemen: Please send the books I have circled below, and bill me at prices above plus actual postage cost. In the event your supply is exhausted on one or more titles, I understand books can be shipped only while the supply lasts.

1 2 3 4 5 6

Name .....

Address .....

City ..... Zone ..... State .....

YOU'RE PROTECTED...
FOR 14 CENTS AN HOUR*

*Based on 4 years amortization. Estimate of installation included.

NOW...

AUTOMATIC DETECTION OF BROKEN FLANGES!

Called a Wheel Checker, this automatic detector consists of a series of steel fingers placed at right angles to the rail. A normal moving wheel depresses the fingers but a broken flange will not! Result: a relay drops out, controlling an alarm and motorpump bright yellow non-drying paint is shot on the passing wheels and you spot the defective wheel easily. The *Wheel Checker*, only one of its kind anywhere, has been successfully detecting broken flanges since 1952. Get detailed information today. Write:

Wheel Checkers

1950 SOUTH BANNOCK ST., DENVER 23, COLORADO

Phones: RAce 2-0313 RAce 2-2026

You Ought To Know...

Stepped-up LCL service through routing, as proposed by the Eastern roads (RA, Aug. 3, p. 7), has been approved by the Great Lakes Region Rail Shippers Advisory Board. But the approval was qualified by the proviso that "workable and uniform routing practices be established before such a procedure becomes effective."

Heaviest passenger traffic in several years passed through Denver Union Station last summer. According to Denver Union Terminal Railway Co. Manager C. E. Breternitz, 629,784 passengers passed through the station in June, July and August—an increase of 65,552 over the same three months last year. "The trend is to train," Mr. Breternitz said in predicting a further increase for 1960.

Rock-bottom fares have failed to save two MoPac passenger trains. The road is petitioning to discontinue two trains operating between Kansas City and Newport, Ark., which it had tried to save by offering round-trip tickets for one-way fare plus $1 (RA, July 6, p. 48). The experiment didn't stem mounting losses.

A rate cut on shipments of corn, soybeans and wheat moving via the Peoria gateway has been announced by Toledo, Peoria & Western. The reduction also applies on grain moving via Hollis and Kolbe, Ill., from originating points on TP&W. Recent studies showed, the road said, that a cut in the interstate and intrastate rates based on a mileage progression and ranging from 4 to 9½ cents per hundredweight to the Peoria gateway would recapture grain traffic and still be remunerative to the rail carriers. The new rates will become effective Oct. 20 for a one-year trial period.

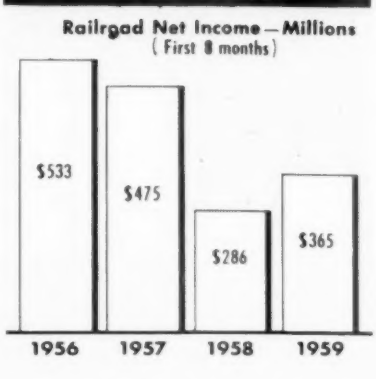
Dome-car service will be operated by Illinois Central on its all-Pullman "Panama Limited" during the winter travel season. Service on the Chicago-New Orleans streamliner will begin Oct. 14, with one car leased from the Pullman Company. Previously, IC and Pennsylvania announced the lease of vista-dome equipment for their Chicago-Florida winter service (RA, Sept. 28, p. 7).

Soo Line will assume full ownership Jan. 1 of the building which houses its general offices in Minneapolis. Soo Line Building Company and the First National Bank of Minneapolis now own a half-interest each in the 19-story structure. The road plans to spend about $1,000,000 to remodel and air condition parts of the building for leasing as prime office space.

Abandonment of Southern Pacific's 71-mile Keeler branch—one of few remaining narrow gage operations in the U.S.—has been approved by an ICC examiner. The examiner recommended that Division 4 permit abandonment of the entire line between Laws and Keeler, Calif., as well as the connecting portion of SP's Owenyo branch.

Erie is recalling 100 employees to its Meadville, Pa., car repair shop, where they will start repairing box cars in anticipation of increased business. Activities at the shop have been curtailed since last June, just prior to the beginning of the steel strike.

...And Watch



Burlington's 21,000 commuters may face a fare increase effective Jan. 1. The road is petitioning the Illinois Commerce Commission for increases amounting to 10% on 10- and 25-ride tickets, 15% on 46- and 54-ride tickets. As justification for the request, the Q points to its increased investment in plant and equipment, plus its increased costs for labor, maintenance, materials and supplies. Worth noting: Service-conscious Burlington has won past increases without stirring up much audible objection from its twice-a-day riders.

Newest cargo pier in Baltimore, dedicated last week, will be operated and amortized by the B&O under a 40-year lease with the Maryland Port Authority. Built at a cost of $4,000,000, the facility will be known as Hawkins Point Marine Terminal. Among those participating in the dedication ceremony were Maryland's Gov. J. Millard Tawes and B&O President Howard E. Simpson.

Automation will be the overall guiding concept for operating tomorrow's trains. This forecast will be made by W. A. Robison, design engineer, Union Switch & Signal, before the AAR Signal Section convention Oct. 13 in Washington. In his talk, "Planning for Tomorrow's Train Operation," Mr. Robison is expected to outline the development of this concept with a description of the basic devices which will be required.

Hotbox detection is "bustin' out all over" at this week's Signal Section meeting in Washington. Two manufacturers, Servo Corp. and General Electric, have exhibits. Another, Link Aviation, is holding a press conference to show off its detector. A panel discussion on hotbox detection has been planned as one of the meeting's highlights. Meanwhile, GRS has announced a license agreement to make and sell a detector *(see page 7)*.

L & N's bid to acquire Interstate will go before stockholders at a special meeting Oct. 28. Stockholders will be asked to authorize L&N directors to proceed with the acquisition through stock ownership.

CLASSIFIED ADVERTISEMENTS

FOR SALE
REBUILT
RAILROAD CARS FOR INTERPLANT USE
GONDOLAS • BOX • FLAT
ERMAN-HOWELL DIVISION
LURIA STEEL & TRADING CORP.
332 South Michigan Avenue
Chicago 4, Illinois
WEbster 9-0500

FOR SALE

Baldwin Diesel Electric 120 Ton, 1000 H.P. Switcher. Rebuilt 1955, less than 2000 hrs. since rebuilt. Bargain Price. STRIEGEL SUPPLY & EQUIPMENT CORP., 307 Jack Street, Baltimore 25, Maryland. Phone ELGIN 5-7922.

R. R.
EQUIPMENT
HOPPER TANK CABOOSES
FLATS GONDOLAS BOXES
AND SPECIAL DESIGNS

WE WILL REBUILD
TO YOUR SPECIFICATIONS
OR BUILD NEW
AS REQUIRED

RAIL & INDUSTRIAL
EQUIPMENT CO., Inc.
30 CHURCH STREET
NEW YORK 7, N. Y.
PLANT: LANDISVILLE, PA.

WANTED
RAILWAY SIGNAL
SYSTEM CIRCUIT
DESIGNERS AND
DETAILERS

Opportunities for men in Circuit Design and detailed positions at various levels. Some Railroad experience desirable. Minimum requirements: High School education with at least four years' experience, or higher technical education with some experience. Salary commensurate with education and experience. Many company benefits. Send resume to Box #901, RAILWAY AGE, 30 Church St., New York 7, N. Y.

TECHNICAL TRAINING
FOR
RAILROAD MEN

Electrical and Mechanical Maintenance of Diesel Locomotives

Diesel Locomotive Operation

Car Work and Car Inspection

Railway Signaling

THE RAILWAY EDUCATIONAL BUREAU
1809 CAPITOL AVENUE
OMAHA 2, NEBRASKA

WANTED FOR EXPORT

Steam or Diesel Locomotive 45 ton—36" gauge. Give full particulars. Box #902, RAILWAY AGE, 30 Church St., New York 7, N. Y.

DIESEL ELECTRIC LOCOMOTIVE

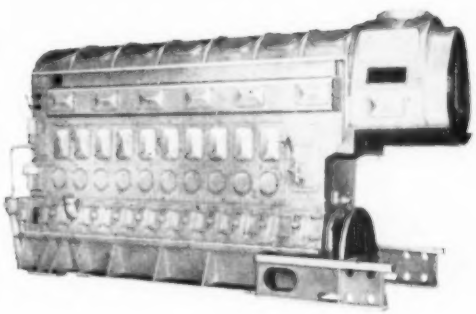
100 ton General Motors (EMD) 600 HP, Model SW-1 built 1951. In excellent condition, has had light use. Also for sale: two 45' flat cars, 100,000# capacity; one Buda engine, Model 6-DCS-1879 (super charged), 283 HP

Carson Industrial Development Corp., 1101 Muriel St., Pittsburgh 3, Pa. HUbbard 1-7200

KEEP
BUYING
U.S.
SAVING
BONDS

Looking for a job?
Looking for a man?
use this space to
get reliable leads
quicker results
EMPLOYMENT OPPORTUNITIES
SECTION
Railway Age, 30 Church St., New York 7, N. Y.

To get the best, use F-M factory experience and facilities for O-P engine service.



Upgrade your diesel power—cut costs on maintenance, shop facilities and inventories...

Specify Factory Warranted

F-M Unit Exchange

Meet increased tonnage demands with up-to-the-minute improvements in design and engineering: Upgrade your motive power fleet with Fairbanks-Morse Unit Exchange O-P engines!

F-M Opposed-Piston diesels are rebuilt to exacting factory specifications and are Warranted just as new equipment. You get full advantage of latest developments in diesel power for maximum performance. A 60% increase in F-M Unit Exchange component availability assures prompt delivery—for every O-P rating and major accessory group.

Remember: The only engine better than your present O-P is an Opposed-Piston diesel made better by Fairbanks-Morse. For full details and delivery schedules, write Fairbanks, Morse & Co., 600 South Michigan Avenue, Chicago 5, Illinois.

FAIRBANKS-MORSE
a name worth remembering when you want the BEST

LOCOMOTIVES • DIESEL, DUAL FUEL AND GAS ENGINES • GENERATORS • SCALES
ELECTRIC MOTORS • PUMPS • COMPRESSORS • MAGNETOS • HOME WATER SYSTEMS

Is Regulation a Failure?

A member of the Civil Aeronautics Board, L. J. Hector, quit his job a couple of weeks ago —and stirred up a lot of discussion, because of the reason he gave for resigning. He was pulling out, he explained, because he had concluded that the regulatory commissions are not competent "to regulate a vital national industry in the public interest."

If he had confined his observations to the Civil Aeronautics Board, it would be hard to refute Mr. Hector's harsh judgment. The Civil Aeronautics Board has never shown that it considers itself otherwise than as the advocate of the particular interests which happened to be dominant in the air transport industry when the CAB took over. It forced the withdrawal of the Boston & Maine from control of Northeast Airlines (which B&M organized). It required the Santa Fe to kill off a growing air freight operation.

The national interest in coordinated service by the several kinds of transportation has meant nothing to the Civil Aeronautics Board—any more than the welfare of air or railroad transportation has concerned the Public Roads Administration or the Army Engineers.

•

Government policy toward transportation has no uniformity or logic to it. It is strictly compartmentized—with promotion of each form of transportation except the railroads entrusted to a zealous group of enthusiasts, none of them with responsibility for, or interest in, the national concern for equitable and economic development of all forms of transportation. It is true that the Civil Aeronautics Board does have some policing functions to perform for the air transport business—but, as far as transportation as a whole is concerned, CAB's role has been that of an advocate —not that of an impartial judge.

The only government regulatory agency that has shown some concern for the health of several forms of transportation is the Interstate Commerce Commission—but the ICC has been attempting to administer a lop-sided regulatory law. The Interstate Commerce Act sets out to achieve "sound economic conditions among the several carriers," but it attempts to attain this goal solely by regulation—and then turns right around and exempts from regulation two-thirds of highway transportation and more than 90% of the waterway carriers.

So why blame the regulatory commissions for faulty expression of national policy toward transportation? The failure lies with Congress and the Administration—*they* have no orderly policy toward transportation. *They* are playing favorites among the several agencies. The regulatory commissions and the transportation promotion agencies (e.g., Army Engineers, Public Roads Administration) are merely the instruments by which political prejudice against, or favoritism toward, the several methods of transportation is given effect.

Of all the government agencies—promotional or regulatory—having to do with transportation, the ICC has been the least partisan—and the most inclined to concern itself with the national interest in the orderly development of all forms of transportation. But there is little for the ICC to rejoice about, in being fairly productive among a group of agencies which, as a whole, are not accomplishing anything especially useful.

The law is quite explicit in its goal of "developing, coordinating, and preserving a national transportation system by water, highway, and rail as well as other means." It looks to the ICC to strive to attain that goal. It is plain to see that the waterway and highway parts of the national transportation system are flourishing, while the railroads are not. Under these circumstances, the logical course for the ICC—since the only instrument at its disposal is regulation—should be to mitigate the severity of its regulation of the railroads, just as far as the letter of the law permits, and until such time as the railroads are flourishing equally with waterway and highway transportation.

•

Mr. Hector is right—the nation needs a unified transportation policy, with a workable law to assure equitable treatment of each transportation agency.

In the meantime, the law, as it now reads, gives plenty of discretion to the ICC to mitigate the severity of railroad regulation—and it is only by following that course, under present conditions —that the ICC can foster "sound economic conditions in transportation."

OVER 300,000 CAR SETS ON 49
U. S. AND CANADIAN RAILROADS
...23 PRIVATE CAR LINES

AN OUTSTANDING RECORD OF SERVICE FOR

Symington®

Improved JOURNAL BOX HINGE LUG WEAR PLATE and SELF-ADJUSTING BUSHING

STOP HINGE LUG AND PIN HOLE WEAR... REDUCE JOURNAL BOX LID LOSSES... MAINTAIN EFFECTIVE LID CLOSING PRESSURE... PROVIDE EASIER LID OPERATION... specify hardened alloy steel wear plates and hardened steel self-adjusting bushings be applied to Journal Box Hinge Lugs on all separate Journal Boxes or Integral Box Side Frames for either maintenance or new equipment. They are available and applied by all manufacturers of Side Frames and Journal Boxes. A.A.R. Alternate Standard—See Manual page D-15-A.

THE Symington-Gould Company
DIVISION OF SYMINGTON WAYNE CORPORATION

WORKS: DEPEW, NEW YORK
NEW YORK • CHICAGO • BOSTON • PHILADELPHIA • SAN FRANCISCO • ST. LOUIS
IN CANADA: ADANAC SUPPLIES, LTD., MONTREAL, QUEBEC

RIBBONRAIL ...20 years prove it's best

A RIBBONRAIL welding installation gives you one advantage no other continuous rail welding method can match—20 years of experience.

That means 20 years in which equipment has produced highest quality welds . . . costs continually lowered . . . more knowledge about the job and its problems accumulated . . .

And these are the advantages—in material and personnel—that mean lower costs and higher quality for you.

In fact, a LINDE representative can show that RIBBONRAIL welding gives better welds at less cost than any other method. Find out why LINDE—a leading manufacturer of electric welding equipment—uses oxyacetylene welding in its RIBBONRAIL service. Call your nearest LINDE office, or write Railroad Department, Linde Company, Division of Union Carbide Corporation, 30 East 42nd Street, New York 17, N. Y. *In Canada:* Linde Company, Division of Union Carbide Canada Limited, Toronto.

RAILROAD DEPARTMENT

Linde

UNION CARBIDE

"Linde" and "Union Carbide" are registered trade marks and "Ribbonrail" is a registered service mark of Union Carbide Corporation.